N. J. Benill.

Bebel

AN

INTRODUCTION TO THE LITERATURE OF VERTEBRATE ZOOLOGY

OXFORD UNIVERSITY PRESS
AMEN HOUSE, E.C. 4
LONDON EDINBURGH GLASGOW
LEIPZIG NEW YORK TORONTO
MELBOURNE CAPETOWN BOMBAY
CALCUTTA MADRAS SHANGHAI
HUMPHREY MILFORD
PUBLISHER TO THE
UNIVERSITY



BLACKER LIBRARY OF ZOOLOGY

Aquarelle attributed to Charles Collins (*ca.* A.D. 1736) of the Dodo, *Raphus cucullatus*. Original drawing from the Taylor White Collection in the Blacker Library of Zoology, McGill University, Montreal, Canada.

McGill University Publications. Series XI (Zoology). No. 24

AN

INTRODUCTION TO THE LITERATURE

OF

VERTEBRATE ZOOLOGY

BASED CHIEFLY ON THE TITLES IN THE

BLACKER LIBRARY OF ZOOLOGY

THE EMMA SHEARER WOOD LIBRARY OF ORNITHOLOGY

THE BIBLIOTHECA OSLERIANA

AND OTHER LIBRARIES OF

McGILL UNIVERSITY, MONTREAL

COMPILED AND EDITED

BY

CASEY A. WOOD, M.D., LL.D.

Collaborator, Division of Birds, Smithsonian Institution

OXFORD UNIVERSITY PRESS

LONDON: HUMPHREY MILFORD

1931

PRINTED IN GREAT BRITAIN

TO

MY COLLEAGUES IN THE

SMITHSONIAN INSTITUTION

TABLE OF CONTENTS

PREFACE ix

A. INTRODUCTION TO THE LITERATURE OF VERTEBRATE ZOOLOGY . 1

Chapter I.

The Beginnings of Zoological Records. Early Greek, Roman, and Oriental Zoologists. The Earliest Medieval Writers on Vertebrate Zoology 1

Chapter II.

Medieval Writers on Zoology and their Immediate Successors. Zoological Incunabula 8

Chapter III.

The Renaissance and its Effect on the Records of Zoological Science. Publications of Natural History Societies and Museums throughout the World. Some Sixteenth and Seventeenth Century Writers on Vertebrate Zoology 14

Chapter IV.

The Literature of Comparative Zoology. The Systematic Classification of Vertebrates. Darwinism, its Literature, its Advocates, and its Critics 22

Chapter V.

Travelogues of Explorers. Reports of Voyages and Scientific Expeditions containing Descriptions of Vertebrates. Journeys of Naturalists Round the World. Government and Private Surveys and Explorations 30

Chapter VI.

Forerunners, Contemporaries, Followers, and Successors of Linnaeus. A Short Account of Linnean Literature. Faunal Classifications and Nomenclature 40

Chapter VII.

Some Fundamental Titles in the Literature of Modern Vertebrate Zoology. Hand-Colored Atlases and their Makers. Animal Painters and Illustrators 46

Chapter VIII.

From Natural Philosophy to Modern Biology. The Literature of Vertebrate Zoology from A.D. 1750 to 1850 54

Chapter IX.

Some Important Zoological Treatises and Serials published during the Nineteenth Century. Monographs on Local Faunas. Textbooks on Zoology. Reports of Explorations and Surveys. The Literature of Vertebrate Bionomics 58

Chapter X.

Some Important Treatises published during the Nineteenth Century, *continued*. Monographs on Local Fauna. Textbooks on Vertebrate Zoology. The Literature of Vertebrate Bionomics 66

Chapter XI.

(I). Some Important Treatises and Monographs on Ornithology and Mammalogy published during the Nineteenth and Twentieth Centuries 73

Chapter XII.

(II). Some Important Treatises and Monographs on Ornithology and Mammalogy published during the Nineteenth and Twentieth Centuries 79

Chapter XIII.

(III). Some Important Treatises and Monographs on Ornithology and Mammalogy published during the Nineteenth and Twentieth Centuries, *concluded* 86

Chapter XIV.

The Literature of Zoogeography. Vertebrate Ecology. Vertebrate Paleontology. Animal Psychology. Zoological Gardens, Museums, and Stations 96

Chapter XV.

Important Treatises on Ichthyology from the Earliest Times to the Present . . 103

Chapter XVI.

Selected Titles from the Literature of Herpetology and Amphibiology . . 109

Chapter XVII.

Oriental Literature on Vertebrate Zoology. Codices, Printed Treatises, and Lithograms in Persian, Arabic, and other Islamic Languages. Sanskrit and Sinhalese Writings. Chinese and Japanese Literature on Zoology 114

Chapter XVIII.

Periodicals and Serials on Vertebrate Zoology 116

Chapter XIX.

Unique and Rare Printed Books, Manuscripts, and Drawings in the Zoological Libraries of McGill University 127

INDEX INDICIS. (Students' and Librarians' Index) 147

B. STUDENTS' AND LIBRARIANS' READY INDEX TO SHORT AUTHOR-TITLES ON VERTEBRATE ZOOLOGY ARRANGED GEOGRAPHICALLY AND IN CHRONOLOGIC ORDER 147

C. A PARTIALLY ANNOTATED CATALOGUE OF THE TITLES ON VERTEBRATE ZOOLOGY IN THE LIBRARIES OF McGILL UNIVERSITY . . 173

الحيوان علي اربعة اقسام قسم يمشي وقسم يطير وقسم يعوم وقسم يناج
في الارض الان كل شي يطير يمشي وليس كل شي يمشي يطير

الجاحظ كتاب الحيوان

Animals are divisible into four classes, those that walk, those that fly, those that swim, and those that creep on the ground. Although every one that flies can walk, yet not every one that walks is able to fly.

AL-JĀḤIẒ. *Book of Animals.*

衆物魚鳥
本類動飛
相相而而
應同下上

When birds fly they rise;
When fishes move, they descend;
Animals of the same class are alike;
Their spirits are in harmony.

Chinese Proverb.

තිරිසනුන්ට අනුකම්පා කරනු.

'Show kindness to animals'.

The motto of the Ceylon Soc. Prev. Cruelty to Animals.

Не сули журавля въ небѣ, а дай синицу въ руки. (Русская пословица.)

Rather a titmouse in my hands than a crane flying in the air.

Russian proverb corresponding to the English
'A bird in the hand is worth two in the bush.'

言聞見
猿猿猿

Thou shalt see no evil, hear no evil, speak no evil.

Japanese proverb illustrating the attitudes of the Three Monkeys.

Ἔνια δὲ τῶν ζῴων ἐπαμφοτερίζει τὴν φύσιν τῷ τ' ἀνθρώπῳ καὶ τοῖς τετράποσιν, οἷον πίθηκοι καὶ κῆβοι καὶ κυνοκέφαλοι.

There are animals whose organization gives them a place in nature between man and the quadrupeds, for example, the apes, the long-tailed monkeys and the baboons.

ARISTOTLE. Περὶ τὰ ζῷα ἱστορίαι, II, Cap. 8.

Nocturnorum animalium, veluti felium, in tenebris fulgent radiantque oculi, ut contueri non sit; et caprae, lupoque splendent, lucemque jaculantur.

The eyes of animals that see at night, cats for example, are radiant and shining; indeed it makes one uneasy to look at them; those of the she-goat and of the wolf are also resplendent and emit light like fire.

PLINIUS SECUNDUS. Lib. XI, Cap. 55.

Il fenomeno delle migrazioni non è più il 'Mistero dei Misteri', come lo definirono parecchi Autori. Il valore delle constatazioni fatte mediante Osservatori ornitologici, numerosissimi inanellamenti ed altre indagini hanno dato allo studio delle stesse quel carattere positivamente scientifico che sempre era loro mancato. Ed ora esso è entrato nel novero dei fatti scientifici, come tanti altri è a mano che le nostre cognizioni aumentano, il lato meraviglioso del fenomeno diminuisce e scompare.

E. ARRIGONI DEGLI ODDI. *Ornitologia Italiana.* 1929.

Törékeny testében erös lélek lakott; éles elméjével oly meleg sziv párosult benne. Amelynek varázsa minden hozzá közelállót megkapott és amely fényessé teszi emlékét szivünkben és ébren tartja iránta való hálánkat.

'In his fragile body dwelt a robust soul; an acute intelligence was in him associated with a kind heart. He had a charming personality that no one who came in contact with him could resist and which while it held our reverent interest also compelled a feeling of thankfulness.'

TITUS CSÖRGEY'S *encomium of the Hungarian naturalist Isidor v. Máday zu Maros. Aquila,* 1925–6.

En Fugl i Haanden er bedre end ti paa Taget.
A bird in the hand is better than ten on the roof.
'De ere sure', sagde Ræven om Rønnebærrene (han kunde ikke naa dem).
'They are sour', said the fox of the rowan berries (he could not reach).
Den Hest, man faar foræret, ser man ikke paa Tænderne.
You do not look a gift horse in the mouth.

Danish Proverbs.

Alla kattor äro svarta i mörkret.
In the darkness all cats are black.
En svala gör ingen sommar.
One swallow does not make a summer.

Swedish Proverbs.

Während der Dauer eines jeden organisirten Körpers, sey sie lang oder kurz, sind zwey Hauptzeitpunkte bemerkbar: Der Anfang des Lebens, sein Entstehen und die Vollendung desselben, sein Tod. Die tausendjährige Eiche und der zweytägige Schimmel, der Mensch, welcher hundert Jahr alt wird, und das Uferaas, das keinen Tag überlebet, alle organisirten Körper haben diese Gränzen ihrer Wirksamkeit gemein; sie entstehen und—sterben.

J. M. BECHSTEIN. 1801.

L'histoire naturelle, prise dans toute son étendue, est une histoire immense; elle embrasse tous les objets que nous présente l'univers. Cette multitude prodigieuse de quadrupèdes, d'oiseaux, de poissons, d'insectes, de plantes, de minéraux, etc., offre à la curiosité de l'esprit humain un vaste spectacle, dont l'ensemble est si grand, qu'il paraît, et qu'il est en effet inexplicable dans les détails.

Œuvres de Buffon. Premier Discours.

Elk vogeltje zingt, zooals het gebekt is.

Dutch proverb.

Forçado pela escacez de recursos pecuniarios a reduzir a sua comitiva a menos do que exigem as necessidades da exploração e a segurança do explorador, quasi só e mal armado, ainda assim não hesitou um instante em affrontar os maiores perigos para ir devassar os inhospitos sertões da nossa Africa occidental. Senão é virtuosa abnegação este desprendimento de todos os interesses a que o commum dos homens costumam prestar fervoroso culto, se não é coragem esta fortaleza de animo com que a todo o momento se malbarateia a vida, se não é heroismo este sacrificio absoluto de si mesmo aos progressos da sciencia; n'esse caso deverão supprimir-se taes palavras por inuteis do nosso vocabulario.

In appreciation of the services of a colleague. J. V. BARBÕZA DU BOCAGE. Lisboa, 1870.

A good dog is one of the most faithful, respectful, affectionate and sensible of brutes . . . a pleasant companion, who knows almost everything except how to talk, who converses with his eyes and ears and tail, shares comforts and discomforts with equal alacrity, and occasionally makes himself useful.

ELLIOTT COUES. *Key to North American Birds.*

If stationary men would pay some attention to the districts in which they reside, and would publish their thoughts respecting the objects that surround them, from such materials might be drawn the most complete county histories.

GILBERT WHITE. *Natural History of Selborne.* 1789.

Además su estudio es digno de atraer toda atención, pues particularmente en la naturaleza es donde se encuentran los maravillosos fenómenos que elevan al hombre á altas contemplaciones, y le hacen distinguir y apreciar las sublimes armonías que tan elocuentemente manifiestan la sabiduría divina: por otra parte, como ramo de instrucción, no merece menos la protección de los gobiernos y universidades, pues no hay duda que es la ciencia mas atractiva y la mas metódica, y por consiguiente la mejor para desarrollar en los jóvenes discípulos el gusto del trabajo y de la observación, inculcándoles un espíritu de órden y claridad que favorece singularmente las operaciones de la inteligencia.

CLAUDIO GAY. *Historia física de Chile.* 1847.

PREFACE

AFTER nearly six years of effort on the part of the Officials of the Libraries and Zoological Departments of McGill University the Compiler and Editor of the present treatise has finally prepared for the press a volume that is intended to assist students of vertebrate zoology and its bibliography, as well as University and other librarians, in securing a fair knowledge of an important branch of natural science. Although the parties to the present compilation are not altogether satisfied with the work—which is necessarily an incomplete presentation of the subject—it is hoped that it may serve as a sort of stopgap until other hands have written and published a complete study and evaluation of all vertebrate literature—a consummation devoutly to be wished.

As will be seen from the Table of Contents the present compilation is divided into three distinct and yet closely related sections.

Section A reviews the literature of vertebrate zoology, so far as it is represented in McGill libraries, from the earliest times to the year 1930.

Section B furnishes a convenient, short-title index of the same literature (including a few serials and periodicals), arranged geographically and in chronologic order, so that the student or librarian may recognize and locate in a few minutes any ordinary treatise or periodical and many of the rare titles of zoological importance. Suppose, for example, that the book desired be a recent work on the vertebrate animals of Southern Mexico. The major headings, *General Works*, *Middle America*, are soon found and casting one's eye towards the end of the list the date and name '1908. Gadow, Hans' are at once perceived. Further information about the book, its whereabouts, &c., are easily obtained by consulting the appended Catalogue or the Catalogue of the British Museum (Nat. Hist.).

Section C, the largest of the three, is the (partially) annotated Catalogue of the printed books, periodicals, independent tractates, original drawings, manuscripts, &c. in the Blacker and other zoological collections of McGill, to which have been added a few titles of importance 'on order' but not yet acquired at the date of going to press. These constant acquisitions also embrace many titles not referred to in this treatise.

It will from the foregoing description be evident that the schemata of the present volume involve—indeed adopt—the principle of repetition; in the text to follow the Compiler occasionally (and deliberately) repeats not only the name of an author but the titles of his writings and even an account of his career when and where he thinks it desirable to fix important facts in the mind of the student.

The main sources of the information to be found in this volume are (first and foremost) the Blacker Library of Zoology, the Emma Shearer Wood Library of Ornithology, the Osler Library of the History of Medicine, the Gest Library of Chinese Literature, and the general library of the University.

The Blacker Library of Zoology was founded in 1920 and, later, handsomely endowed through the munificence of Mr. Robert Roe Blacker and his wife Nellie Canfield Blacker of Pasadena, California.

Mr. Blacker was born in Brantford, Ontario, Canada, and in 1867 migrated to Manistee, Michigan, to engage in the lumber business. There he married, and in 1912 retired from business to settle in Pasadena where he and Mrs. Blacker have continued to reside. These two widely known and highly respected citizens have for many years been engaged in various philanthropic works. They have shown themselves to be good friends of scientific research, especially in generous donations to McGill University and to the California Institute of Technology. Living

in the neighbourhood of the latter school of learning they have been closely identified with its many activities and have given much of their time, energy, and wealth to forwarding its usefulness and prosperity. In recognition of Mr. Blacker's material and personal aid in the advancement of science McGill University offered him the honorary degree of LL.D., but, unfortunately, the degree is never conferred *in absentia*, and ill health prevented his attendance upon Convocation.

About two-thirds of the titles listed in the appended Catalogue are shelved in the stacks of the Blacker Library, and it now ranks among the large collections of zoological literature in America. The endowment furnished by the donors is sufficient for the continuation of the many zoological serials and periodicals now in progress and for the yearly addition of the most important new publications on vertebrate zoology. A more detailed account of rarities, such as original drawings, and other unique periodical series, not to mention scarce and fundamental treatises (of which this library has a goodly share) will be found in the various chapters of the present volume.

The aim of the founders of the Blacker Library is to furnish a supply of literary material that will meet the varied wants of a University in which not only the student body, but research scholars, librarians, and the public generally may consult quickly nearly every work on zoology likely to interest them.

The Emma Shearer Wood Library of Ornithology, begun several years prior to the installation of the Blacker collections, forms a sort of supplement to the latter. It was founded in the name of a lady who, although (through her husband) an American citizen, was born in Montreal. As the Shearer family of Montreal has always been closely identified with the life of McGill, it seemed appropriate that this collection should form part of the University library.

The E.S.W. Library was originally intended to furnish as nearly as possible complete sets of periodicals and serials devoted to bird-life, many of which, as is well known to collectors, are out of print and have always been difficult to acquire. Consequently it happens that the library is particularly rich in these fundamentals, so necessary to research in ornithology. In addition, the collections show the usual (and many unusual) titles directly or indirectly bearing on the avifauna of the world in all the scientific and in several other languages. Arrangements for the acquisition of serial and periodical continuations have been made, as well as provision for the purchase of desirable treatises as they appear on the market.

Both the Blacker and E.S.W. Libraries are under the special care of Miss Elizabeth Abbott, a trained librarian working under the advice and guidance of the general director, Dr. Gerhard Lomer.

The following account of the Osler Library was written for the London *Times* by Dr. Charles Singer, a former associate of Sir William Osler in Oxford University. As the famous donor of the collection was born in Canada and once held the chair of Physiology in McGill it was an appropriate gift to that University: 'Sir William Osler was all his life a book collector. During his later years much of his best energies were given to a favourite scheme for the formation of a library illustrating the history of medicine. It was always his intention that this should be presented to his *alma mater*, McGill University, Montreal. There his books have now been conveyed and his library has recently been opened to the learned public. Osler's scheme centred round what he called the "Bibliotheca prima". This was to include all the works of first class and historical importance in the advancement of medicine and the allied sciences. Under this heading he included about a hundred names. They were to be represented in each case by the first edition and by the most important subsequent editions, together with works illustrative of their history and reception. Grouped round the "Bibliotheca prima" was a "Bibliotheca

secunda" and other bibliothecae classed as "Litteraria", "Historia", "Biographica", "Bibliographica", besides special collections of manuscripts and of fifteenth-century books.

'The library is not a very large one—the editors distinguish under 8,000 items—but it is undoubtedly put together with very fine and individual judgement, and forms the true reflex of its collector. There are a few obvious gaps which Osler would certainly have filled had his life been prolonged for even a few months. The pious feelings of the editors have, however, preserved the library as near as possible in the form in which he left it. The library contains about 126 books printed in the fifteenth century, many of great rarity. The manuscripts include a number of documents relating to Osler's own career and a group of oriental medical manuscripts [and printed books] presented to the library by Dr. Casey A. Wood. The preparation of this very full catalogue has occupied a large part of the time of the editors for some ten years. Apart from its other interests, the extreme patience and accuracy with which the book has been prepared render it a most valuable and, indeed, indispensable bibliographical reference work. The three editors, Dr. W. W. Francis, now Librarian of the Osler Library at Montreal, Mr. R. H. Hill, of the Bodleian Library, and Dr. Archibald Malloch, Librarian of the New York Academy of Medicine, have performed their task with great skill and discretion. Their constant aim of fulfilling the wishes of Osler with exactness and completeness has, we believe, been attained.'

The Gest Chinese Research Library furnishes a number of oriental works on zoology kindly described elsewhere by the librarian in charge, Dr. Robert de Résillac-Roese. As this famous collection deserves a somewhat extended notice the Compiler quotes from an account of it given by Professor Berthold Laufer:

'Next in number of volumes to the Chinese Division of the Library of Congress the important collection of Chinese literature made by Mr. Guion M. Gest of New York [now one of the special libraries of McGill University] is the most outstanding and most comprehensive and at the same time outranks others in number of rare works in America. It is justly characterized as a research library, as it enables the student to carry on serious and fruitful investigations in almost any department of Chinese civilization as history, literature, religion, and science.

'The object of the Gest Library is to place its books at the disposal of scholars for research-work, especially in co-operation with the faculties of McGill and other universities, as well as with sinologists in the United States, Europe, China, and Japan. Research-work of this character has already been done in medicine, pharmacology, astronomy, &c. A plan is on foot to found a chair for Chinese language and literature at McGill, which was chosen by Mr. Guion M. Gest because of the excellent and profound research-work accomplished in the different faculties and departments of this university.

'The Gest collection is housed in the attractive library building of McGill University, where it occupies a large room on the second floor. The stacks are of steel, arranged in two stories, the upper one being entirely devoted to the great cyclopedia *T'u shu tsi ch'eng*. The arrangement of the books is so systematic and splendid that any book can be traced at a moment's notice. The reading-room is airy and spacious and well equipped.

'The staff of the Gest Library is formed by Dr. Gerhard R. Lomer, University Librarian, and Dr. Robert de Résillac-Roese, who has immediate charge of the cataloguing and pursues his task with a rare zeal and enthusiasm. He is assisted in his work by Miss Swann, a good Chinese scholar, and by a scholar of Chinese nationality, who at present is Mr. Kwei. The library's collaborator in China is Mr. I. V. Gillis who resides in Peking and who has extraordinary ability as a book-hunter. He was formerly naval attaché to the U.S. Legation of Peking.

'The Gest Library was informally opened in 1926 on the day of Chinese New Year, February 13th, with an asset of 304 large works consisting of 10,750 volumes. These had been selected by

Mr. Ch'ên-Pao-Ch'ên, noted statesman and scholar, tutor of the last Manchu emperor, Hsuan Tung (1908–11). By June 30th, 1929, the collection had increased to a total of 2,054 titles consisting of 50,640 volumes.[1] All these works have been identified, catalogued, doubly card-indexed, labelled, and placed on the shelves in their proper classification sequence. They are all bound in Chinese cases (*t'ao*). For these 2,054 works 38 catalogues have been typewritten in triplicate and, correspondingly, two sets of index cards, namely: title cards, 4,500; authors' cards, 4,170; Total 8,670 cards. Aside from these 50,640 volumes there are 6,000 not yet identified. Another consignment of 5,305 volumes arrived on July 13th of this year at Vancouver, and approximately 15,000 volumes from a famous private library in China are expected the latter part of this summer. Valuable works will be continually added. Beginning from Cat. No. 305 all works were selected by Mr. I. V. Gillis. Excepting a few modern works bought from Peking and Shanghai bookstores, all the works in the collection were formerly in the possession of Manchu princes, well-known statesmen, or bibliophiles.

All books are bound in Chinese style, i.e., cloth cases held together by bone slips (*ku tsien*).'

The general library of the University was originally founded by and named after the Hon. Peter Redpath, who also erected the main building that houses most of its 250,000 volumes. Although no particular effort was made during the last hundred years to acquire books on natural history the present Catalogue lists quite a few important works on vertebrate zoology acquired by the Redpath Library during that period. Among them is an original subscription copy of Audubon's magnificent *Birds of America*, elephant folio; rare, early French and British voyages of zoological interest; presentation copies of natural history books to Sir William Dawson, the celebrated Chancellor of the University; a complete set of British Museum publications, and so on. Recently the University purchased the library and museum of the defunct Montreal Natural History Society and with it many volumes of scientific periodicals and other works that filled serious gaps in its shelves. Under the fostering care of Dr. Gerhard Lomer, the energetic University Librarian, this department of the McGill equipment has made rapid progress in all directions.

The McGill libraries, especially the Oslerian and Medical sections, have a representative collection of works on the extremely interesting and professionally valuable study of comparative pathology, including textbooks and other treatises on veterinary medicine and surgery. However, the Compiler does not consider it wise to do more than mention this fact here. The literature of animal diseases, their diagnosis and treatment, apart from a few exceptions listed in the appended Catalogue he, for particular reasons, regards as foreign to the purposes of this Introduction and so refers special students to the card indices of the sectional libraries mentioned.

Attention may be drawn also to the Lyman Library and Museum of Entomology, a valuable research collection of treatises and periodicals and specimens founded and endowed half a century ago by Henry Herbert Lyman (1854–1914), a McGill Governor. The Museum was formally opened in 1882 and the Library in 1893. There are over 1,500 bound volumes in the collection (that represent the most important works on Entomology) and thousands of unbound periodicals and tracts, mostly listed in an easily accessible card catalogue. The very efficient Librarian is Mr. Albert F. Winn.

Quite a few titles in the Lyman Library include substantial references to vertebrate zoology and are, in consequence, included in the appended Catalogue. This collection, together with many titles on invertebrates in the Blacker Library, completes the array of faunal literature and ounds out the whole series of biological material necessary to the literary life of the University.

[1] Greatly increased since that date.—Compiler.

The reader is warned in advance that this work makes no claim to the (as yet) unfilled position of a *complete study* in English of the literature of vertebrate zoology any more than the Catalogue that follows constitutes a fully annotated list of that literature. The Compiler does, however, hope that the McGill libraries have gathered a sufficient number of biologic items to justify the present publication as a basis for an elementary thesis on the literature of vertebrate zoology.

A complete annotated account of the literature of biology might possibly be published in twenty or thirty folio volumes if carried out with the meticulous care and marvellous patience that characterize, for instance, that remarkable production, Bashford Dean's *Catalogue of Fishes*, in which not only every monograph but every published contribution to the end of 1923 from every known source (periodicals included) is listed and evaluated by the author and his associates. As part of such a herculean task there might be published a like evaluation of the literature of ornithology (already partially accomplished in Zimmer's annotated Catalogue of the Ayer Library), of mammalogy and eventually of herpetology and amphibiology. Meantime the present writer offers his Introduction and partially annotated Catalogue as a contribution to a study of the whole subject of vertebrate zoology.

Shortly after the beginning of the present task the Compiler began to see as through a glass darkly what Osler perceived at once, viz. that some sort of Index would be necessary in an annotated catalogue of the type he proposed. 'The task' (of making the *Bibliotheca Osleriana*), he said, 'is perhaps too heavy for one man to undertake; but I am assured by experts that there is no inherent difficulty in such a catalogue provided there is a good index.' Later his literary executors reported that one of the rules laid down by Sir William Osler was that cross-references, except in the index, should be reduced to a minimum. When his scheme was criticized, and manifest objections were raised . . . he had a ready if hyperbolic answer, 'We'll print in large letters at the top of each page, CONSULT THE INDEX FIRST'.

Since in the Compiler's case an index might be useful to alleviate or even neutralize some of the bibliographic offences of which he has been guilty in the present undertaking he has devised a *student's and librarian's geographic and author key* (Part B) to the chief works on vertebrate zoology from the earliest times to the present. With this Index, arranged in geographic and chronologic order, it is hoped that it will be useful to and find favor in the eyes of those whom it is especially intended to serve—enabling them to find in a few minutes the chief authorities on any subject covered by the agenda of this volume.

No student of zoological literature can be said to have had a liberal education who is not to some extent familiar with the bibliography not only of natural science, but of bookmaking in general.

Assuming that the Compiler's experience may serve as some sort of guide to this knowledge the following short titles (all in the McGill libraries) are given as among his chief sources of information in the preparation of the present volume: *Bibliotheca Osleriana*, Oxford, 1929; Bashford Dean, *Bibliography of Fishes*, 1895–1923; J. B. Spix, *Geschichte aller Systeme in der Zoologie*, &c., 1811; J. T. Zimmer, *Catalogue of the Ayer Library*, 1926; Eric Nordenskiöld, *History of Biology*, 1929; Ernest Hirsch-Schweigger, *Zoologisches Wörterbuch*, Berlin, 1925; L. Camerano, *Materiali per lo studio di Zoologia in Italia nella prima metà del secolo XIX*; L. von Graff, *Die Zoologie seit Darwin*, 1896; Victor Carus, *Geschichte der Zoologie*, 1872, and its Translation, *Histoire de Zoologie*, by Prof. Schneider; C. G. A. Giebel, *Thesaurus Ornithologiae*, 3 vols., 1872–7; C. D. Sherborn, *Index Animalium*, Lond., 1902; D. H. M'Nicoll, *Dictionary of Natural History Terms*, 1863; Alfred Newton, *Dictionary of Birds*, 1893–6; Elliott Coues, *Key to North American Birds*, 1925; W. A. Locy, *History of Biology*; Max Meisel, *A Bibliography of American Natural History*, 1924; *A List of Biographies on Special Subjects in the Crerar Library*,

Chicago, 1902; H. C. Bolton, *Catalogue of Scientific and Technical Periodicals, 1665–1895*, 2nd edition, 1897; and as a supplement: Wm. J. Fox, *American Journals omitted from Bolton's Catalogue*. Of great value has been Joseph Grinnell's recent contributions to the bibliography of Pacific coast avifauna, noted in the present Catalogue.

As a general proposition, also, the Compiler agrees with the list given by J. S. Kingsley (*Naturalist's Assistant*, 1882) of 1,500 titles necessary for the Systematic Zoologist; Mullens and Swann, *Bibliography of British Ornithology*, Lond., 1917; R. Friedländer, *Naturae Novitates*, 1879–1930; British Museum, *Catalogue of the Books, Manuscripts, Maps and Drawings in the British Museum* (*Natural History*), Lond., 1903 et seq.; British Museum, *Catalogue of the Printed Books in the Library of the British Museum*, Lond., 1881–1900, 75 vols., and Supp. 11 vols.; F. L. Burns, *Bibliography of scarce or out of print North American amateur and trade periodicals devoted to Ornithology*, 1915; Wilhelm Engelmann, *Bibliotheca historico-naturalis. Verzeichnis der Bücher über Naturgeschichte welche in den Jahren 1700–1846 erschienen sind* (*Index librorum historiam naturalem . . .*), Lpz., 1846, Bd. 1. 8+786 pp., 8vo; continued as: *Bibliotheca historico-naturalis . . . Supplement-Band, enthaltend die in den periodischen Werken aufgenommenen und die vom Jahre 1846–1860 erschienenen Schriften* (*Bibliotheca zoologica . . . bearbeitet* von J. V. Carus . . . und W. Engelmann), Lpz., 1861, 2 Bd., 8vo; S. H. Scudder, *Catalogue of Scientific Serials . . . 1633–1876*. Camb., Mass., 1879 (Harvard University—*Library*. Special publications, 1); H. O. Severance, *Guide to the Current Periodicals and Serials of the U.S. and Canada*, 4th ed., Ann Arbor, 1920; *Societatum litterae, Verzeichnis . . . auf dem Gebiete der Naturwissenschaften* . . . Hrsg. von E. Huth (and afterwards A. Hering and M. Klittke), Berlin, 1888–1900; Wiegmann's *Archiv für Naturgeschichte, Zoologie*, Berlin; *Zoologica*, Hrsg. von R. G. F. R. Leuckart und C. Chun; Zoological Society of London, *Catalogue of the library*; *Zoological Record* to date; G. R. Lomer and M. S. Mackay, *Catalogue of Scientific periodicals in Canadian libraries*, 1924; J. Dryander's *Catalogue of the Banksian Library*, 5 vols.; *Union List of Serials*, 1927; and the *U.S. Catalog of Books*, 1929.

The *Encyclopaedia Britannica*, *International Encyclopaedia*, *Chambers's Encyclopaedia*, the recent *Encyclopedia Italiana* and similar treatises contain many valuable monographs on the various sections and subsections of vertebrate zoology.

Although somewhat out of date a useful work of reference is Nemnich's *Polyglotten-Lexicon der Naturgeschichte*, 3 vols., 1793.

It is not necessary to list here all the standard works of general reference, including those that deal especially with incunabula and other early printed books, but the well-known Catalogues of Hain, Pollock, Pellechet, Brunet and others of similar character (to be found in every properly equipped research library) should, like the foregoing titles, be at hand for consultation.

As a preliminary study of this subject there is no monograph in English that covers the ground in a more interesting fashion than Geo. Haven Putnam's *Books and their Makers during the Middle Ages*, 2 vols., 2nd ed., N.Y. (1896). This monograph gives an illuminating account of the subject from the fifth to the beginning of the eighteenth century and should be read by every student of that important era in book-making.

Studies in the History of Medieval Science, by Charles Homer Haskins, 2nd ed., Cambridge, 1927, is another volume that the student will find interesting and valuable.

In Ronald B. McKerrow's *An Introduction to Bibliography*, Oxford, 1927, the student will also find a practical manual containing much information—presented in an easy and attractive style—not to be found in most books of the kind. The appendix with, among other practical heads, a 'short list of (translated) difficult place names' is worth the price of the book.

It will be of signal advantage to the student of zoological literature if he becomes acquainted

with the 'sales catalogues' issued from time to time by the larger dealers in scientific works. Among these may be mentioned the publications of Bernard Quaritch, and Maggs Bros., London; Friedländer und Sohn, Berlin; L'Art Ancien, Zurich; and of Taeuber und Weil, Munich. In many of these catalogues will be found useful bibliographical notes.

The Compiler is greatly indebted to many friends for assistance in preparing this volume. First of all he wishes to thank the Librarian of McGill University, Dr. Gerhard Lomer, and his heads of Library departments for their valuable help. In the re-arrangement of the journals in the E.S.W. Library of Ornithology that task had the benefit of Miss Margaret S. Mackay's unusual acquaintance with natural history periodicals. Without the co-operation of these trained experts, the present task could not have been completed.

Professor Arthur Willey, Director of the Department of Zoology in McGill, has most kindly written the notes of many non-English titles of zoological works in the libraries, while Mr. Henry Mousley has evaluated a large proportion of the treatises printed in English. For the remaining notes the Compiler is responsible.

The Authorities of the British Museum (Natural History Department), especially the Keeper, very generously assigned a room and equipment to the Compiler and his secretary for two years' work on the Introduction, Index, and Catalogue. In addition, the Compiler is especially indebted to the Librarian of the Zoological Department, Mr. Basil H. Soulsby, and his successor, Mr. Cockburn Townsend, while their assistant, Mr. H. W. England, very kindly and helpfully placed the resources of the invaluable natural history collections at the Compiler's disposal.

Dr. C. Davies Sherborn (Natural History Museum) and Professor Ramsay Wright, formerly of Toronto University, now of Oxford, have both been very helpful.

Dr. Ernest Hartert and the library of Lord Rothschild's hospitable Museum at Tring have also furnished valuable aid.

For advice and help in the present undertaking the Compiler is indebted to several of his associates in the Smithsonian Institution, in particular to Dr. Chas. W. Richmond and Dr. Alexander Wetmore, the Assistant Secretary.

In the important matter of proof-reading Miss Lilian Bates, the Compiler's Secretary, has been of great assistance.

The orthography of these volumes is that adopted by the *Oxford English Dictionary* in which both the so-called American and British styles are given.

AN

INTRODUCTION TO THE LITERATURE

OF

VERTEBRATE ZOOLOGY

CHAPTER I

THE BEGINNINGS OF ZOOLOGICAL RECORDS — EARLY GREEK, ROMAN AND ORIENTAL ZOOLOGISTS — THE EARLIEST MEDIEVAL WRITERS ON VERTEBRATE ZOOLOGY.

Aristotle—Caius Plinius Secundus—Dioscorides—Aelian—Oppian—Constantinus Africanus—Titus Lucretius Carus—The Phisiologus—The Dialogus Creaturarum—The Early Moslem Naturalists—Mesue—Averröes—El Kasvini—Abdallatif—Abou el Deschahif—El Damiri—The Nuzhat-Nama—Avicenna—Early Chinese Writings on Natural History—Rabanus Maurus.

SEVERAL thousand years before the Christian era frescoes and rock-cut pictures of animals were produced by primitive artists. One of these, taken from an ancient tomb at Maydum in Egypt, presents with great fidelity a flock of geese. The Compiler of this Introduction has seen in several Egyptian temples, monuments, and tombs similar animal portraits that vie in beauty of portraiture with modern pictures. Assyrian monuments also show animal portraits, though they are not, as a rule, so well executed.

Numerous Glacial Period paintings of birds on the walls of caves in France and Spain—12 species have been recognized in a single cave near Cadiz—were recently discovered.

Of authors the first serious writer on zoology whose works have survived is Aristotle. This remarkable philosopher and famous naturalist was born at Stagira, 384 B.C., son of the physician to and friend of the King of Macedon, grandfather of Alexander the Great. At the age of 18 he left Stagira, went to Athens and became a pupil of Plato, with whom he resided until the death of the latter 20 years afterwards. He subsequently retired to Lesbos, where he married the daughter of an old pupil—the ruler of that State. In 342 B.C. he became, at the invitation of Philip of Macedon, instructor of his son Alexander. In 334 B.C. Aristotle went to Athens and there opened a school—the celebrated Lyceum. His followers were known as *Peripatetics* and the sect has survived under various names until the present day. The books that have escaped the ravages of time and the neglect of man are only a fraction of this great naturalist-philosopher's output; it is unlikely that we shall recover the *Ζωικά* and the *'Ανατομικά* in which he probably described more fully the animals with which he seems to have been acquainted, but we do know that this famous writer of the early Greek period greatly influenced scientific thought throughout the Middle Ages and even the philosophy of our own times.

Sundevall estimates that this versatile ob-

server described more or less fully 70 mammals, 150 birds, 20 reptiles, 116 fishes, 60 insects and arachnids, 24 crustaceans and annelids, and about 40 molluscs and radiates.

Aristotle made a rough classification of his birds into eight principal categories, his follower, Pliny the Elder, relying entirely upon characters taken from the feet, divided them into three. The McGill libraries are fortunate in the possession of over 20 editions of Aristotle and an early fourteenth-century manuscript of his zoological treatises.

Three centuries were to elapse before the second outstanding figure in zoological literature appeared—Caius Plinius Secundus (A.D. 23–79), known as the Elder, or the Naturalist.

He was the author of numerous works, social, political, and philosophic, among them a *Historia naturalis* in 37 books, most of Liber X being devoted to birds. Perhaps the best translation of this famous treatise is the French work by Littré. Pliny acknowledges his indebtedness to Aristotle but, so far as we know, he made many additions to and improvements upon the works of his great predecessor.

Plinius Secundus was born at Como in North Italy, and when 23 years of age entered the Army in North Germany, and during his service wrote several military treatises. During this period he travelled about the Empire making notes and observations which he subsequently utilized in his various writings. He numbered the Emperor Vespasian among his intimates, but his social diversions do not seem to have interfered with his studies or his devotion to literature. Altogether he produced 160 volumes of manuscript which he left to his nephew. Unfortunately most of his works have been lost, but for us, *fortunately*, the *Historia naturalis* has survived. The author died in A.D. 77, killed by noxious fumes given off by an eruption of Vesuvius that, escaping into the Bay of Naples, overcame the naturalist while he was commander of the Roman fleet at that station.

An excellent review of the Birds of Pliny and Aristotle will be found in Evans's edition, with notes, of Turner's Birds. Including the first (1469) printed edition the McGill libraries possess more than 30 printings of Pliny's *Historia naturalis*.

Another century passed before we find a third ancient authority of special prominence, viz. the 'Sophist', Claudius Aelianus, born *ca.* A.D. 220 at Praeneste. Although an Italian, Aelian's works were written in Greek. He added very little to our knowledge of ancient zoology, although he refers to the writings of several other naturalists (whose works have not survived) showing that the study of animal life in the early centuries of our era had its share of devotees.

In his description of animals whose parts were used as remedies Pedacius (Pedanius) Dioscorides (1st cent.), a Greek physician, born in Anazarba, Cilicia, gives an account of many faunal forms in his celebrated six books of the *Materia medica* (*editio princeps*, A. P. Manutius, 1499, in the Osler Library), some editions of which furnish a complete catalogue of the vertebrates, as known in his time.

Constantinus Africanus, who died in A.D. 1087, was the author of ΖΩΟΤΡΟΦΕΙΟΝ or *Leporarium*, in which many animals are described. In this treatise numerous quotations from Oppian and other writers are given, but a few original observations are also recorded. A McGill library has the 1560 edition of Constantine the African.

Titus Lucretius Carus, a Roman poet who lived in the first half of the first century B.C. wrote a hexameter poem (*De Natura Rerum*) in six books in which he endeavoured to penetrate the mysteries of 'things as they really are'. In it he refers to animal life and indicates a knowledge of the fauna of his day. The McGill libraries, especially the Osler and Blacker collections, have fourteen editions of this remarkable work. The Bibliotheca Osleriana possesses the rare Venetian impression of 1495.

Oppian (2nd cent.) has also written at least one natural history monograph, a poem in the guise of a treatise on fishing and hunting. The first edition appeared in 1478, the second

in 1508. Both are extremely rare. A good edition is the Greek text (printed with a Latin translation and voluminous notes) by J. N. B. de Ballu, folio, Argentorati, 1786. The Latin title reads, *Oppiani Poemata de venatione et piscatione*. Among the several printings in the various libraries of McGill is a good (Italian) rendering, by Salvini, in the Blacker Library.

Ray Lankester points out the childish delight and wonder with which the people of early civilizations gathered and treasured stories of strange animals from distant lands, and instances among these fables the *Physiologus*, the best known of the early medieval Bestiaries (treatises on animals to whom moral traits are ascribed) as examples of this primitive credulity.

Certain Christian teachers took an interest in natural history, partly because of passages in Holy Writ that they wished to explain and partly on account of the supposed divine revelations in the book of nature of which it is man's duty to take proper advantage. But the early Christian writers were far removed from scientific methods, and instead of consulting Aristotle and other observant naturalists they quoted Aelian and similar works of the imagination in which scraps of folk-lore, travellers' tales, and fragments of misapprehended science were set forth in what was regarded as an elegant and authoritative style.

They took these fairy tales of the 'naturalist' for gospel truth and tried to make the best of them for religious instruction.

Several of the Fathers—Clement, for example—followed this plan, and wrote a curious mixture of zoological descriptive matter and theological sermonizing. They told of beasts and birds that had no existence as a basis for churchly teachings of about the same scientific standing and value.

Among the many known editions of the *Phisiologus* is a metrical codex of 12 chapters by Bishop Theobald, from A.D. 1022 to 1035 Abbot of Monte Cassino, Italy. This variant has been copied and printed and reprinted many times since the first manuscript appeared. A very good, annotated, and illustrated English translation of the Cologne, 1492, edition is by A. W. Rendell, London, 1928. The characters, physical, moral, and mental, of twelve birds and beasts reviewed from the medieval standpoint are quaintly developed in this curious work, one of the most popular animal folk-lore works of the Middle Ages. The numerous printings of the *Phisiologus*, including one in old-English, are fully listed by Choulant (*Handbuch der Bücherkunde für die ältere Medizin*, Leipzig, 1841).

The mythical *Ant-lion* furnishes a fair example of the zoology of the *Physiologus*. Of course this beast is not the insect we know, but 'his father hath the shape of a lion, his mother that of an ant; the father liveth upon flesh, and the mother upon herbs. And these bring forth the ant-lion, a compound of both, and in part like to either; for his forepart is that of a lion, and his hindpart like that of an ant. Being thus composed he is neither able to eat flesh like his father nor herbs like his mother; therefore he perisheth from inanition'. This description is then followed by an ingeniously constructed moral.

The *Physiologus* (or *Phisiologus*) was not only popular but appealed to the imagination of the multitude long after it ceased to have the support of the Church as a respectable work of piety. It also furnished material for artists and architects engaged upon cathedrals and other ecclesiastical buildings, especially in gargoyles and for ornamentation of the walls and furniture.

The chief emblems of the original *Physiologus* were as follows: '(1) the *lion* (footprints rubbed out with his tail; cubs first receive life three days after birth by their father's breath); (2) the *sun-lizard* (restores its sight by looking at the sun); (3) the *charadrius* (presages death or recovery of patients); (4) the *pelican* (recalls its young to life with its own blood); (5) the *owl* (or nykticorax, loves darkness and solitude); (6) the *eagle* (renews its youth by sunlight and bathing in a fountain); (7) the

phoenix (revives from fire); (8) the *hoopoe* (redeems its parents from the ills of old age); (9) the *wild ass* (suffers no male but itself); (10) the *viper* (born at the cost of both its parents' death); (11) the *serpent* (sheds its skin; puts aside its venom before drinking; is afraid of man in a state of nudity; hides its head and abandons the rest of its body); (12) the *ant* (orderly and laborious; prevents stored grain from germinating; distinguishes wheat from barley on the stalk); (13) the *sirens* and *onocentaurs* (compound creatures; see Isaiah xiii. 21, 22); (14) the *hedgehog* (pricks grapes upon its quills); (15) the *fox* (catches birds by simulating death); (16) the *panther* (spotted skin; enmity to the dragon; sleeps for three days after a meal; allures its prey by sweet odours); (17) the *sea-tortoise* (or aspidochelone; mistaken by sailors for an island); (18) the *partridge* (hatches eggs of other birds); (19) the *vulture* (assisted at birth by a stone with loose kernel); (20) the *ant-lion* (likely to perish of hunger because it cannot subsist on either vegetable or animal diet alone); (22) the *unicorn* (caught only by a virgin); the *hyena* (a hermaphrodite); (25) the *otter* (enhydris; enters the crocodile's mouth to kill it); (26) the *ichneumon* (covers itself with mud and so lies in wait to kill the dragon —a version of No. 25); (27) the *crow* (takes but one consort during life); (28) the *turtle-dove* (same nature as No. 27); (29) the *frog* (either living on land, when it may be killed by rain, or in the water without ever seeing the sun); (30) the *stag* (destroys its enemy the serpent); (31) the *salamander* (quenches fire); (32) the *diamond* (powerful against all danger); (33) the *swallow* (brings forth but once, a misreading of Aristotle, *Historia animalium*, vol. 13); (34) the tree called *peridexion* (protects pigeons from the serpent by its shadow); (35) the *pigeons* (of several colours but led by one of a purple or gold colour); (36) the *antelope* (or hydrippus; caught by his horns in the thicket); (37) the *fire-flints* (of 2 sexes that combine to produce fire); (38) the *magnet* (that adheres to iron); (39) the *saw-fish* (sails in company of ships); (40) the *ibis* (fishes only along the shore); (41) the *ibex* (descries the hunter from afar); (42) the *carbuncle* (called 'the diamond again', found only by night); (43) the *elephant* (conceives after partaking of mandrake; brings forth in the water; the young protected from the serpent by the father; when fallen is lifted up only by a certain small individual of its own kind); (44) the *agate* (employed in pearl fishing); (45) the *wild ass and ape* (mark the equinox); (46) the *Indian stone* (relieves patients of the dropsy); (47) the *heron* (touches no dead body, and keeps to one dwelling-place); (48) the *sycamore* (the wild fig; grubs living inside the fruit and coming out); (49) the *ostrich* (devours all sorts of things; forgetful of its own eggs). Besides these, other and later versions contain sections of unknown origin about the *bee*, the *stork*, the *tiger*, the *woodpecker*, the *spider*, and the *wild boar*.'

Another form of the *Phisiologus* was the *Dialogus creaturarum*. A modern edition of that ancient folk-lore dialogue—in which several birds take part—was published in Munich, 1923, under the title *Die Zweisprach der Tiere*, 78 pages, illustrated by 38 woodcuts. These fables, by an unknown author, have been frequently copied, the first printed edition being published by Peter van Leu at Houda, Holland, in 1480. The present volume is number 27 of a 550 limited printing, translated from Latin into German, with the woodcuts of the early Dutch edition. There are many dialogues in which various animals take part, thus illustrating their habits and establishing their identity.

However ridiculous their writings now seem, early observers and writers were the founders of zoological science, so that all through the succeeding centuries—including our own times—the naturalist-explorer and the author worked hand in hand and played an important role in the progress of zoology.

As will be seen by the numerous early works (that include zoological treaties) in the *Bibliotheca Osleriana* lower-animal life and human structures were, in the medieval mind, closely

related. Indeed we largely owe the important province of modern comparative anatomy, physiology, and psychology to the fact that in the Middle Ages parts of animals as well as of plants were regarded as 'simples', to be employed in medicine just like any other remedy.

In discussing the therapeutic merits of animal products the animals themselves were often described and pictured, thus giving the treatise a definite place in pure zoological literature.

This fact explains the very noticeable and intimate association in literature between medieval medicine and medieval zoology. The physician—as the name indicates—was necessarily a naturalist and all his tides of learning, such as they were, flowed towards contemplation and study of 'things as they are'—*de proprietatibus rerum*—in the realm of nature. Bound by traditional chains—as was the whole world of science during the Dark Centuries—he had, perhaps, more than any other student of life, fitful visions of biological truth, inspirations that at the *renaissance* became clearer and clearer figures out of the night of superstition and ignorance. Thus we find that during the past four or five centuries medical men have been distinguished by more or less original and independent contributions to biological literature in all its departments.

In the early centuries the world of science was enlightened by a new luminary, the rising sun of Mohammedan enterprise.

The Blacker Library, the Osler Library, and the E.S.W. Library of Ornithology are well supplied with manuscripts and printed works (mostly in Arabic, Persian, and Hindustani) that furnish a full account of the zoological literature of Persia, North India, Arabia, and their dependencies during the early flourishing periods of Moslem Learning. Before the days of Mahomet there were in Syria and Egypt Greek-Christian and (probably) Greek-Hebrew schools, medical and other, and although the victorious Mohammedans closed most of these seats of learning the advancing hosts absorbed much of their doctrines and such of their teaching methods as were not in conflict with the dogmas of the Koran and incorporated them into their own publications. Thus the celebrated Rhaza (El Razi) tells us that a physician, Mesue (Aboru ben Masoweih), who died about A.D. 857, wrote a work whose Latin translation was entitled *De Animalibus*. Of the many Arabic authors that followed this early writer the best known is Avicenna (980–1037), who paraphrased the *Zoologia* of Aristotle and added to that great work many original observations, ranking as a naturalist writer with the equally famous Spanish-Arabian, Averröes (1126–98).

Averröes (Ibn-Rushd) was born in Cordova, the son of a learned judge. In his native city, for many centuries the centre of Hispano-Arabic culture, he studied medicine and law, and was for several years *cadi* of Seville and, later, governor of a province. If any medieval naturalist is worthy to be called the Aristotle of the Middle Ages it was certainly Ibn-Rushd. Dante in his *Divina Commedia* describes Averröes in the court of the heathen by the side of Aristotle and, as Osler points out, he was one of the principal commentators on that authority.

An account of the animals of Egypt, in particular a description of the crocodile and hippopotamus, is furnished by another Islamic authority, Abdallatif (1162–1231), in a treatise that is not merely a compilation from previous Greek and Latin authors but which contains original observations on the animal life of the Nile region.

The Blacker Library has two editions of the works of Sakanja ben Muhammed, called from the district (Kasvin) in Northern Persia where he resided, El Kasvini. This natural philosopher lived in the thirteenth century and wrote the *Wonders of Nature* in which he quotes not only his Persian predecessors in natural history but Hippocrates and Aristotle. He was an exponent of the Aristotelian theory of the development of life from lower forms to higher. He described for the first time the

orang-utan, the dugong, the flying dog (or fox), and several other new species.

The service rendered by early Arabic writers on natural history was not so much their actual observations of new facts or the promotion of original theories of animal life as in the preservation and diffusion all over the world of the humanistic writings (including the biologic teachings) of the Greco-Roman authors to which they had access. As Nordenskiöld remarks, 'through the intermediary of the Arabian philosophers the few learned scholars of the West in the early Middle Ages acquired a knowledge of the products of classical culture; Aristotle, for instance, was long read at the medieval universities in Latin versions of Arabic translations from the original writings, and the Arabic commentators, Avicenna, Averröes, and others, were the first to act as guides to an understanding of the treatises on nature and to help Europeans to penetrate that world of phenomena whose existence they had entirely forgotten'.

It is not possible here to do more than mention some of the more prominent of the other Moslem writers on natural history whose works have come down to us mostly in fragmentary form or as complete codices. Among these we find Abou el Deschahif (*ca.* A.D. 868) the author of the *Kitab-el-haiwan* or 'Book of Animals'; Abou Bekr ben Ali Ibn Wahschijah (10th cent.) who wrote a treatise whose (Latin) title is *Descriptio animalium*. Ahmed Ibu Abul Asch'ath (d. 970) is represented in biological literature through a Bodleian manuscript whose (translated) title is *Liber de Animalibus*. A famous astronomer, Abul Casim el Madschriti of Cordova (d. 1007), has left a (Madrid) manuscript entitled *Generatio animalium*.

Victor Carus tells us further about Abou Mahammed Abdallatif ben Jusuf (1161–1231) that in a description of Egyptian marvels, written in 1203, he devoted an entire chapter to a description of animals, based largely on Aristotle.

Moslem naturalists, as is well known, delighted in works similar to the *Physiologus*, and the McGill libraries have several charming Persian and Arabic volumes containing stories based on dialogues between birds and other animals. One of these—a great favourite in medieval times—is a prettily illustrated and illuminated 12mo giving thirty tales of a parrot, in which this talkative bird regales the harem with tales of jungle life. Indeed, as late as the early fifteenth century a Persian, Schiek Ferededdin Attar, wrote a *Dialogue between Birds*. Another rather important work is that of Abulfath Ali Ibn el Doreihim (d. 1361) of Baghdad, the *Utilitates animalium*, divided into four parts; quadrupeds, birds, fishes, and insects.

Still another codex, bearing a similar title but quite different text, was written by Seinneddin el-Hanefi (d. 1324).

Last, but by no means least, is the well-known work on zoology, the *Hayat ul-Haywan* ('Life of Animals') by Albulbeka el-Damiri, who died in Cairo A.D. 1405. The McGill libraries have several editions of this monumental treatise. They also shelve several extracts and partial translations, with comments by various editors reflecting in part original observations of the writers. But mostly these were founded on the teachings of early Greco-Roman codices, to which they not only had access but of which they made a large number of translations. It is upon such renderings that we must rely for all we now know of the lost originals.

The Compiler regrets that limited space prevents that extended notice of these Moslem writers that their place in the history of zoological literature demands. During three years residence in the Far East he collected (with the aid of W. Ivanow, former official of the Imperial Russian Library at Saint Petersburg) for the Blacker Library as many of the written and printed copies of their works as were available, one of which, the *Nuzhat Nama* (q.v.), has been translated and a portion published.

Among these is an anonymous codex written about A.D. 1580 entitled *Kitab-i-Haywan*,

a zoological dictionary. The copy in the Blacker Library is incomplete both at beginning and end, so that the exact date of its original composition and the name of the author cannot be determined. As it is distinctly different from other works of the kind produced during the same period it is probably unknown to cataloguers and is consequently very rare.

Of the manuscripts purchased in Persia for McGill is one by Muhammad Taqi, son of Muhammad Tabrizi, dated 1690, the title of which is *Khawassu'l-hawan*, a study of the medicinal properties of mammals, birds, reptiles, fishes, and insects, in the form of a dictionary. It was composed in honor of the royal naturalist, Abbas II of Persia. Examples are also found in the British Museum, the India Office, the Bodleian, &c. At the same time was acquired a lithographed copy of the foregoing, printed about 1858, in Teheran. It is profusely if not artistically illustrated and is supplemented by a work on poetry. This edition is extremely rare and is not found in any European library.

Another zoological manuscript (found in Shiraz) by Nizamu'd-Din Ahmad, was written *ca.* 1750, and is entitled *Midmar-i-danish*. This is a treatise on the horse, its diseases and their treatment; on amulets for horses, &c. It was composed in A.D. 1760 and is also dedicated to Abbas II of Persia.

Still another acquisition is a very rare edition of a well-known work by Prince Timur-Mirza Qajar, published in 1890, the *Baz-Nāma-I-Nasiri*. This treatise on falcons and hunting-birds in general has been reprinted and translated many times and is one of the standard works on falconry.

Also purchased in Shiraz is an anonymous manuscript of recent date, entitled *Tibbu'l-haywan*. It is on veterinary medicine and surgery and is useful for determining the meaning of the terms one meets with in Arabic and Persian works on zoology. As there is no proper introduction, the author's name, date of composition, and the formal title are not mentioned. The copy (or original) is not found in the usual catalogues, so that the present copy of the treatise may be unique. There is a table of contents at the end of the book and the caligraphy is good.

The influence of Chinese literature on occidental faunal publications has been practically nil and yet elaborate books—both as printed volumes and codices—were produced in China for many centuries and greatly affected the art and science of the great Empire as well as Korea and Japan. The librarian of the Gest Library of Chinese Literature in McGill—the largest of its kind in America—has kindly contributed a review of the zoological works in his collection, a contribution that has been introduced into the chapter in this Introduction on Oriental Zoological literature.

Of the (about) 180 incunabula in the McGill libraries (about) 30 are more or less zoological. The compiler has annotated the majority of the latter for the appended Catalogue and referred to a few of them in the present Introduction and Index.

The first printed book on animals (as well as the first treatise on medicine) is the 1467 edition of *Rabanus Maurus*. This Abbot of Fulda wrote (*ca.* A.D. 820), his famous *De Sermonum Proprietate*, of which Book VII contains descriptions of fishes, serpents, and other animals. Of this extremely rare incunable only three are in America, one of them in the Osler Library.

CHAPTER II

MEDIEVAL WRITERS ON ZOOLOGY AND THEIR IMMEDIATE SUCCESSORS.

Emperor Frederick II—Hildegarde of Bingen—Albertus Magnus—Vincent de Beauvais—Conrad von Megenberg—Bartholomaeus Anglicus—Anselm of Canterbury—Herbals—Edward Wotton—Dame Juliana Berners—Johann von Cube—Conrad Gesner—Aldrovandus—Guillaume Rondelet—Pierre Belon—Leonardo da Vinci—Fabricius ab Aquapendente—Marcus Aurelius Severinus.

PARTLY because of the impetus given to literary production by the Saracen invasion we notice a general European revival of interest in the natural history of Aristotle and other early writers. This forerunner of the later renaissance did not dispel many of the clouds of ignorance and superstition that had settled on occidental lands, but the thirteenth century may be taken as the period of a noteworthy, if temporary, scientific revival.

A further account of these important Islamic contributions to the literature of Zoology will be found in the chapter on Oriental Literature.

The annals of the chase, and especially descriptions of falconry and other forms of hunting furnish, incidentally, rather good accounts of the animals involved. That interesting codex the *De arte venandi cum avibus* of the Emperor Frederick II of Hohenstaufen (1194–1250) is a case in point; and there were many other in which original observations of local fauna are recorded. Fairly good descriptions of the fishes and insects known to naturalists in the thirteenth century are also given by this Imperial author, although the former are, in some instances, not readily identified.

Among his many activities Frederick regulated and improved the ancient school of medicine at Salerno and initiated a registration of physicians.

Many accounts, long and short, have been written of the life and acts of this famous medieval personage, but the Compiler is aware of no review of his career superior to the brief outline contained in Eric Nordenskiöld's summary: 'Italian in his upbringing, half oriental in his habits and mode of thinking, he gathered round him learned men from the East and West. He had Aristotle's writings translated from the Greek into Latin. Frederick's treatise on falconry is far more than a mere dissertation on hunting; in a lengthy introduction he gives an account of the anatomy of birds, in which he not only displays a knowledge of Aristotle's anatomical writings, but is also able to point out inaccuracies in his statements; further, he describes avian habits and the movements of migratory birds, &c. Unfortunately Frederick lived during the period of ecclesiastical reaction in the thirteenth century, and after his death his priestly opponents eradicated most of the cultural progress he had achieved; the dissection of human bodies was again prohibited and physicians had henceforth, as before, to rely on the classical authorities. The translation of Aristotle which he caused the learned Michael Scotus to carry out was perhaps the most enduring evidence of his cultural aims; it was on this work, in fact, that the scientists of the later Middle Ages in general based their learned studies.'

The accompanying Catalogue lists several editions of the well-known treatise on falconry referred to above, and the Compiler had an opportunity to study the famous manuscript in the Vatican library.

The faint flickers of originality that, apart from the Arabian *lux ex oriente*, lit up the gloom of the Dark Ages were furnished in part by a nun, the celebrated Hildegarde of Bingen

(1098–1180). She wrote the *Physica* (see Chas. Singer's *Studies in the History and Method of Science*), which contains popular but more or less personal notes on animals and plants, and the use man can make of them.

A naturalist whose name is familiar to students of medieval literature is Albertus Magnus (1193–1280), his real name Albert von Ballstadt. He joined the newly formed order of Dominicans, became a professor in Paris and, finally, bishop of Regensburg. Retiring to the quiet of a monastic cell he devoted his life to science as it was then conceived, and particularly to 'harmonizing' the writings of Aristotle with the teachings of the Church.

A more important service we owe to Albertus Magnus; *edidit flammam*, he kept alive and encouraged an interest in nature herself at a time when the minds of men were powerfully and exclusively directed to a supernatural world in or beyond the skies.

Although the revival of interest in such humanistic studies as those supplied by Aristotle was noticeable towards the end of the Middle Ages, it must not be forgotten that most of the teaching bodies were ecclesiastic in character and opposed to original research or an expression of any opinion not fathered by an all-powerful church. Any departure from this rule was promptly met by fire, sword, or cord. This mixed state of mind is discussed by J. G. Schneider in his *Aristotelis, historia animalium.*

Victor Carus gives an interesting account of the three Dominican friars that in the thirteenth century attempted to furnish the world with all that was really known about the zoology of their time. These were Vincent de Beauvais, Albertus Magnus (1193–1280) and Thomas de Cantimpré. The last named is also known as Brabantius, from his native province. His life dates are 1186–1263 and he wrote a *De naturis rerum*, a *Bonum universale de apibus*, and several other natural philosophical books, giving them a moral (i.e. ecclesiastic) turn when possible. His treatises must be regarded as among the few medieval books on zoology that mark progress in that science.

He catalogued and described (often accurately) 110 mammals, 114 birds, 85 fishes, including, of course, the usual number of fabled animals and duplications of species under different names. In addition to Aristotle this author quotes Galen and a number of other medico-naturalists as his sources of information.

The notations following the titles in the McGill libraries attributed to Albertus Magnus furnish a sufficient account of this priest's literary labors, but it may be said here that he was by far the greatest of the triumvirate just mentioned and perhaps less hampered, although a devout son of the Church, by ecclesiastic shackles than his two contemporaries.

Vincent de Beauvais (Vincentius bellovancensis; d. 1264), whose *Speculum Quadruplex* in seven folio volumes was first printed in 1473, exhibits a fine example of a voluminous compilation, an immense encyclopedia after the Arabian style. He furnishes, with his authorities meticulously quoted, a complete review of all the natural, doctrinal, moral, and historical data of the times. The seventeenth book describes, in alphabetical order, the birds; the eighteenth the fishes; the nineteenth domestic mammals, the twentieth wild animals, and the twenty-first other animals, including serpents, 'reptiles', and worms. The *Speculum majus* has been several times reprinted, the last edition in 1624.

The foregoing represents only a small portion of the literary activities of medieval naturalists. We may add to the list of authors Gerard de Broglio, Bartholomaeus de Bragantiis and Engelbert d'Admont, all of whom in the thirteenth century wrote codices on the natural history of animals, each of them advances and improvements on the bestiaries of that period.

Mention has been made of that important writer *Bartholomaeus anglicus*. Of course one refers to the earlier writer of that name and not to the de Granville (or Glanvilla) of a later century. Of the more important Bartho-

lomew we know little except that he was an English Franciscan monk, whose *De Proprietatibus Rerum* (q.v.) is among the most famous of medieval writings. His *Historia* (*Liber*) *animalium* is, like the encyclopedia of Vincent of Beauvais, an immense compilation of previous writers, most of them familiar to us, to which some original observations are added. The work passed through many editions, the latest one known to the Compiler having been published in 1619.

The passing of the early part of the medieval period saw several new and important publications on zoology, among them the celebrated work of Conrad von Megenberg (1309–78), the (rare) illustrated *Buch der Natur*. Comparatively unknown is Jacob van Maerlandt who, about the same time, wrote a similar work entitled *Naturen Bloeme*. The former work (the first natural history printed in German) was reissued and thoroughly analysed by Franz Pfeiffer, Stuttgart, 1861, and the student is referred to that review. Von Megenberg reflects the first glimmerings of the humanistic, *renaissance* torch.

Although a Dominican friar and presumably much influenced by ecclesiastic conventions and traditions, his book exhibits many decided advances on previous treatises. Several reprints and editions of this fundamental volume have appeared during the past four hundred years.

Let us now glance at the zoological literature of a comparatively modern epoch, that post-medieval era when University teaching had expanded and had been liberalized, when speech became freer and, above all, when the invention of printing brought works on natural philosophy, both ancient and recent, within reach of the many.

This revival of zoological research in Europe was, of course, a part of the New Birth of science. All the currents of independent thought, as opposed to superstition and mere authority, ran towards a scientific River of Doubt and Exploration.

Of those that lived and worked on the borderland of the Old and the New was Edward Wotton (1492–1555), son of a college porter in Oxford University, who rose to distinction as a practising physician. He worked for over twenty years on his *De differentiis animalium* and proved himself a faithful follower of Aristotle, whose animal classification—viviparous quadrupeds, oviparous quadrupeds, sanguineous animals, non-sanguineous animals, &c.—he accepted. He did, however, reject many of the fabulous creatures whose pictures and descriptions had been handed down from antiquity, although he—*die Güte liegt so nah*—rarely gives a description of many new forms that, quite at hand, British explorers were constantly bringing to England. One must, of course, not forget that Wotton was, as a physician, mostly interested in the medicinal uses of the animals he described.

Cuvier thinks that the commentary by Petrus Gyllius (Leyden, 1583) on Aelian should be bracketed with Wotton's work. The former is entitled *Ex Aeliani historia latine facta . . . de vir et natura animalium*. This claim does not appear justifiable although Wotton does quote Gyllius a number of times, and was probably influenced by his writings.

Animal dialogues were, following the invention of printing, published in plenty after the style of the medieval *Physiologus*—the most noticeable one being the *Lucidarius* (or *Elucidarius*) attributed to Anselm of Canterbury. The first edition appeared in 1479, since which date many printings of it have been made in almost every European language. It was, in fact, a 'best seller' of its day.

Dame Juliana Berners, at one time Prioress of the Nunnery of Sopwell, Herts., flourished about 1460 and wrote treatises on Hawking, Hunting, Coat-Armour, Fishing, and Blasing of Arms. These tractates form the famous *Book of St. Albans*, the first edition of which was printed and published by Wynkyn de Worde in 1496. It is profusely illustrated by excellent woodcuts and has been several times reprinted. In the course of this work the natural history of hunted animals—birds,

fishes, and mammals—receive attention, thus making it a proper title for a zoological library.

Probably the best account of the life and writings of Dame Berners is given by Joseph Haslewood as a preface to the facsimile edition of London, 1810, a historical research of great zoological value and one well worth reading. This work is now among the rarities but an example will be found in the Blacker Library, together with a unique MS. copy of the same edition.

The early post-medieval period was also, it must be remembered, an era of numerous herbals and faunal *pharmacopeias* in which not only plants but animal parts were described for their value as remedies in disease. A few of these are of zoological importance because of the description of the animals themselves. Apart from that consideration *Kräuterbücher* and other herbals do not really belong to this Introduction.

The titles *Gart* (*Garten*) *der Gesundheit*, *Hortus* (Ortus) *Sanitatis*, and *Garden of Health* have an oriental suggestion. Under the first heading it appears as the earliest printed German Herbal having natural history interests. It has also an important standing as one of the first prints illustrated by woodcuts. This celebrated natural history treatise was probably a compilation by Johann von Cube, a Frankfurt physician. It was derived from various ancient and medieval sources, notably from the *Speculum Naturale* of Vincentius de Beauvais, the *Etymologiae* of Isodorus Hispalensis, and from Megenberg's *Buch der Natur*. The first edition of the *Hortus* was published in Mainz by Peter Schöffer in 1485 (Hain 8948), since which date many variants, large and small, have appeared in several languages, including English. Probably the most elaborate edition is the *Hortus Sanitatis Major*, folio, Mainz, 1491, Jacob Meydenbach (Hain 8944), 453 leaves, xylographic title-page, seven full-page and over a thousand smaller woodcuts of plants, animals, and minerals. As Payne has said, it was the model for all subsequent editions. Folio editions with full-page cuts are called 'major'; smaller formats 'minor', or are not distinguished by any adjective. Occasionally some of the cuts are coloured, but these are not, as a rule, accurate and do not assist in elucidating the text.

One of the Blacker copies (the second edition) of the *Hortus Sanitatis Major*, Strassburg, Johann Pryss (*ca.* 1497), folio, 360 leaves, has three full-page woodcuts, 530 smaller cuts of plants, 164 of quadrupeds, 122 of birds, 106 of other animals, and 144 of minerals, and the text includes most of the zoological facts of Megenberg's *Buch der Natur*. The large initials are rubricated, the woodcuts are old-colored, and there are a few contemporary marginal notes. Choulant calls the *Hortus* the most important illustrated natural history of the Middle Ages. Five editions are shelved in the McGill libraries, two of them incunabula.

The outstanding product of the New Birth in zoology was Conrad Gesner (Gessner) of Zurich, early a student of medicine, philosophy, &c. at Paris, Montpellier, and Basel. This versatile genius was at one time professor of Greek at Lausanne and eventually was appointed municipal physician of his native town, where he died of the plague in 1565. His comparatively short life was a continual struggle with hardships; to gain a living he had to do much hack-work in many departments of literature. Perhaps his superabundant energy was stimulated by these obstacles; at any rate he found time to accomplish what might well have absorbed the vitality of several men of genius. Among his many writings is the famous *Historia animalium*, 1551, four large folios of nearly 3,500 pages, in which he classified species on the Aristotelian plan, although the influence and example of Pliny are also noticeable throughout. The first part treats of quadrupeds, the second of birds, the third section of fishes, and the fourth, a posthumous work, of reptiles and insects. Its alphabetic arrangement and the careful preparation of the text appeal to the student. Numerous original observations are recorded,

and he rejects (on stated grounds) many of the fabulous animals accepted by his predecessors.

Probably the highest compliment paid to this voluminous compiler is the attempt of the Germans to adopt him, with the title of the 'Pliny of Germany'. As a matter of fact Gesner was born, lived, wrote, and died in Switzerland, and was proud to be called a Swiss. Osler refers to him as follows: 'Conrad Gesner, who kept open house, . . . for all learned men who came into his neighbourhood . . . was not only the best naturalist among the scholars of his day but of all men of that century he was the pattern man of letters. He was faultless in private life, assiduous in study, diligent in maintaining correspondence and good will with learned men in all countries, hospitable—though his means were small—to every scholar that came into Zurich. . . . While finding time for services to other men he could produce as much out of his own study as though he had no part in the life beyond its wall, . . . He is the father of Bibliography.'

An important innovation in this remarkable work was the employment of illustrations by the best artists of the day; indeed, he draws attention to the fact that the picture of the rhinoceros was made by Albrecht Dürer. It is hardly necessary to say that the *Historia animalium* long continued to be a storehouse from which succeeding writers 'borrowed' many a helpful page.

In this connection it must be remembered that medieval artists, including monastic illustrators, often drew faithful pictures of faunal life.

In the Albertina Museum (Vienna) are preserved aquarelles and other drawings by Albrecht Dürer of animals similar to that just mentioned as contributed to Gesner's *Historia*. Facsimiles of Dürer's drawings can be seen in the Blacker Library.

So far as concerns *quantity* in the literature of sixteenth-century natural history at least one follower of Gesner surpassed that great writer. He is Ulisse Aldrovandi who, born in 1552 of a Bolognese family, studied philosophy and medicine at Rome and Padua. He was later made professor at Bologna where he resided for forty years, dying at the advanced age of eighty, when he willed his large collection of natural objects, including many unpublished manuscripts, to his native city.

Probably his treatises are an improvement on those of his prototype Gesner, although Buffon (who superseded him) declares that only about ten per cent. of Aldrovandi's work is worth preserving. However, Nordenskiöld holds that his illustrations, typography, and classification are improvements on Gesner's.

Guillaume Rondelet was born in 1507 at Montpellier, where he later taught anatomy in the University. He is best known by his work on sea fishes—*De Piscibus marinis*—which included whales, seals, cephalopods, crustaceae, and vermes. He was especially noted for his dissections of these animals, which led him to contradict many of the assumptions of Aristotle.

Pierre Belon, born in 1517 at Le Mans, was a medical naturalist who traveled widely, made large collections of animals—especially of fishes—and wrote at least two monographs on marine life. They are entitled *La Nature et les diversités des poissons* and *L'Histoire naturelle des étranges poissons marins*, both of which include even a wider range of species than those described by Rondelet. However, Belon regarded almost every mammalian swimmer as a 'fish', among them the otter, the hippopotamus, and the beaver. During his Eastern travels he discovered several oriental types unknown to his contemporaries. It must be noted that his piscine classification approaches the modern and includes a division of true fishes into bony and cartilaginous.

Belon did even better as an ornithologist. His *Histoire des oyseaux* (1555) arranges the various groups according to their structure and habits; there is in his writings much evidence of a study of the morphology and histology of species, while comparative anatomy is illustrated in the pictured comparison of the skeleton of a man with that of a bird in his

first book on avian life. In this last regard he was far ahead of his times.

Although Belon may be regarded as the first serious comparative anatomist, Leonardo da Vinci (1452–1519) helped along what is actually a modern study by his attention to anatomical details in art, just as Andreas Vesalius (1514–64) created a new era in medicine and surgery by his careful attention to human dissection.

It is, however, to Fabricius ab Aquapendente (Girolomo Fabrizio) that we must look for the first wide application of Belon's attempt to place comparative anatomy and, perhaps, comparative embryology, where they rightly belong. His work on the development of the fertilized ovum is but a part of these investigations, most of which are fully illustrated.

In many respects Marcus Aurelius Severinus (1580–1656) is a more important comparative anatomist than his predecessors. His *Zootomia democritaea* is not merely a defense of comparative anatomy in the modern spirit but is a systematic treatise on that subject, with notes on his own zootomic experiences with birds, mammals, fishes, and many invertebrates. He gives a full account of the dissecting instruments, lenses, &c. used in this histologic art. The Compiler has his *Ornitholographia*, a chapter of the *Zootomia*, separately bound, actually a comparative study of the feet of birds.

CHAPTER III

THE RENAISSANCE AND ITS EFFECT ON THE RECORDS OF ZOOLOGICAL SCIENCE — PUBLICATIONS OF NATURAL HISTORY SOCIETIES AND MUSEUMS THROUGHOUT THE WORLD — SOME SIXTEENTH AND SEVENTEENTH CENTURY WRITERS ON VERTEBRATE ZOOLOGY.

Academia Naturae Curiosorum—Accademia dei Lincei—Royal Society of London—Académie des Sciences de Paris and its congeners throughout France—Berlin. Gesellschaft Naturforschender Freunde—The Preussische Societät (Akademie) der Wissenschaften and similar societies throughout Germany—Academie Royale des Sciences, Brussels—Academie d. Wissenschaften, Vienna—Académie des Sciences, St. Petersburg—Swedish Société des Sciences et des Lettres and other Scandanavian Natural History Societies—The (London) Royal Asiatic Society and its associates in the Far East—Local British Societies of Natural History—The Smithsonian Institution and other American Natural History Societies and their numerous publications—K. Dansk Videnskabernes Selskab—Philadelphia Academy of Sciences—Associations for the Advancement of Science in England, America, France, and Germany—International Congresses on Zoology—Società Zoologica Italiana—Early and some Recent British Local Faunists and their Writings—Ferrante Imperato—Clusius—John Hunter—Ray—Willughby—Hans Sloane—W. Charleton—Johannes Jonstonus—Topsell—S. Collins—G. Germano—H. von Hoevel—H. H. Frey—W. Frantze—S. Bochart—D. Sennert—Scaliger—Nieremberg—José d'Acosta— Hernandez—G. Piso—Molina—Gesner—Schwenckfeld—Borelli—C. Merrett—Sibbald—Agricola—Tulp—O. Worm—John Caius—P. Gillius—J. Bontius.

THE scientific awakening of Western Europe in the sixteenth century and the alliance of medicine with biological research in University study were followed by the founding of important academies, societies, and museums for the special investigation of natural history. Among the first named were the *Academia Secretorum Naturae,* Naples (1560) (later suppressed by the Church), the London Royal Society (1662), and the Paris *Académie des Sciences* (*ca.* 1670). These and numerous other early institutions, to be later mentioned, published and some of them continue to publish to the present day important serials and periodicals devoted to zoology, most of them on call in the Blacker and other McGill libraries.

The spirit of these institutions is well illustrated by the motto of the (London) Royal Society, 'Nullius in verba'.

In other words the rules of the society insured the collection of carefully noted phenomena only and the critical investigation of all new or remarkable observations. As Lankester says, 'Under the influence of the touchstone of strict inquiry thus set on foot by the Royal Society, the marvels of witchcraft, sympathetic powders, and other relics of medieval superstition disappeared like mist before the sun'.

The Royal Society began to issue important and continuous publications since its foundation in 1662; its fellowship constitutes by far the most notable roster of British naturalists,

and its *Philosophical Transactions* (1664 to date) and other serials are essential to the usefulness of any biological library.

The output of zoological literature was from quite early times stimulated by the formation of these learned societies first throughout the western world and later in America and Asia, many of them devoted to the study of natural history. Only a partial list of these can be mentioned here, but practically all of them had sections on natural history or had leanings thereto, and they are represented, with the titles of their literary products, in this Catalogue, as *transactions*, *comptes rendus*, *annali*, *Abhandlungen*, &c., many of which are difficult to secure to-day.

Germany was among the first to found scientific societies and academies. J. L. Bausch, a doctor of medicine at Schweinfurth in 1652, initiated the famous *Academia Naturae Curiosorum* which, under various changes of name, status, and publications was destined to exert a powerful influence on European zoology and to survive until the present day. It is now best known as the *Academia Caesarea Leopoldino-Carolina Germanica*, whose *Nova Acta* and other periodicals are shelved in the McGill libraries.

As mentioned, among early institutions of natural science in France is the famous *Académie des Sciences de Paris*, founded about the middle of the seventeenth century. After a reorganization and division of the *Académie* into sections there began a yearly publication of *Mémoires* which, interrupted only by the stormy days of 1790, have appeared regularly ever since. The list of academicians is practically that of the most renowned men (and women) of learning in the French dominions.

Quite as important for the present Introduction was the founding in 1626 of what was then the 'Jardin Royal des Herbes médicinales', later the 'Jardin des Plantes', and now the 'Musée d'Histoire Naturelle'. The *Annales* and *Mémoires* of this famous institution were first issued in 1802.

The titles of the Paris *Académie des Sciences* were copied in many French cities—e.g. in Dijon, Marseilles, Amiens, Caen, Bordeaux, Lyon, Toulouse, Montpellier, and Rouen. The majority of these important publications, largely collected for the Blacker Library, are to be found in the accompanying Catalogue.

Several short-lived academies about this time also appeared in Italy—the *Accademia dei Lincei*, the *Accademia del Cimento* (1651–67), *et al.*

The foundation of the *Académie Royale des Sciences*, &c., at Brussels occurred in 1772, since which date many valuable *Mémoires*, &c., have been regularly issued, most of them listed in the Catalogue.

Owing to political and other complications the German *Königliche Preussiche Societät* (*Akademie*) *der Wissenschaften* was not founded until 1700. It underwent various titular changes and issued a variety of important periodicals (some of them published in the French language, fashionable during the reign of Frederick the Great and afterwards) that have regularly appeared, albeit under occasional changes of title, until our own time.

Of the many other noteworthy German societies devoted more or less to natural history and contributing much of value to zoological literature the Compiler can refer here only to a few. Among them are the *K. Academie der Wissenschaften*, Wien, founded in 1846; the *K. Gesellschaft der Wissenschaften* at Göttingen, founded in 1751; the *K. Akademie Gemeinnütziger Wissenschaften*, founded in 1754 and displaying several changes of title; in Munich several virile societies, the earliest the *König. Bayerische Academie der Wissenschaften*, founded in 1758 and publishing (among many other periodicals) their *Abhandlungen* in 1763 with various continuations to the present year. In Dantzig, there was founded in 1743 the *Naturforschende Gesellschaft*, prototype of numerous societies with similar names founded throughout German-speaking Europe, that have published many *Annalen*, *Versuche*, *Verhandlungen*, *Schriften*, &c., most of which are still issued, and are listed in the present Catalogue.

Of the societies for the study of special departments of biology gradually developed in all civilized countries, one may mention here the important Palaeontographical Society (founded in 1847) whose monographs, mostly in the form of annual volumes, have been issued since 1848. Those referring to vertebrate zoology will be found in the McGill libraries and a complete list to 1908 can be consulted on pp. 1501–2 of the Br. Mus. Cat. (Nat. Hist.).

Among the many—too numerous to receive mention here but mostly listed in the appended Catalogue—popular publications of German natural history societies is the active and productive *Berliner Gesellschaft Naturforschender Freunde*, the foster-parent of many similar societies in middle Europe. Founded in 1773 it has continued to function since that date and to publish continuously several periodicals of which, perhaps, the *Schriften* and its continuations (1780 to date) are the best known.

It was, in like fashion, the *Kgl.-Preussiche Akademie* (founded in 1700) that published the *Descriptiones Animalium* of J. R. Forster's voyage to the South Seas in 1772–4, and the zoologic reports of R. Kossmann's journey to the Red Sea, 1877–80.

A very important, vigorous, and literature-producing *Académie des Sciences* was planned in St. Petersburg by Peter the Great and founded in 1725 by his widow, the remarkable Catherine I. Immense collections of books, manuscripts, and natural objects were purchased throughout Europe by these rulers, while the activities of scientific investigations and investigators were encouraged during the past 150 years so that an extensive Russian zoological literature, often published in several European languages (in addition to the Russian text), is familiar to all advanced students of systematic biology.

In 1720 Linnaeus helped to create in Uppsala and to write for the Swedish *Société des Sciences et des Lettres*. This was followed by the foundation of the *Kongliga Svenska Vetenskaps-Akademien* in 1739. The *Arkiv*, *Handlingar*, &c. of these important institutions continue to be issued to the present time. See the appended Catalogue.

Through the munificence of an Englishman there was founded in 1846 at Washington what was destined to become a center of great scientific importance—the Smithsonian Institution. Its *Annual Reports* (begun in 1846), its famous *Contributions to Knowledge* (1848), its *Miscellaneous Collections* (1862), and many more publications of its branch organizations (especially the U.S. National Museum) have added a large number of original and extremely valuable monographs on vertebrate zoology to the literature of biology.

In Denmark the University of Copenhagen with its scientific clientele has played an important part in the publication of zoological literature from 1671 onwards, aided by the *Skrifter* and other journals of such associations as the *K. Dansk Videnskabernes Selskab*, founded in 1742. Many of the Danish serials and other periodicals are listed in this Catalogue.

Of much importance are the publications of the (London) Royal Asiatic Society and of its associates—the Asiatic Society of Bengal, Ceylon, Japan, Malaya, &c.

The *Philadelphia Academy of Sciences* and other flourishing natural history societies were more recently founded in America. The *Journal of the Philadelphia Academy* was first published in 1817.

At the risk of duplication one may at this time refer to a few rather important (some quite early) British publications in zoology partly dependent upon the impetus resulting from the establishment of local natural history societies. Some of these monographs will also receive attention elsewhere in this Introduction. The Compiler has in mind such treatises as *Irelands naturall history* by Gerard Boate, 1652; Joshua Childrey's *Britannia Baconica*, 1661; C. Merrett's *Pinax rerum naturalium Britannicarum*, 1666 (several editions); Robert Plot's *Natural History of Oxfordshire*, &c., 1677 (2nd ed., 1705); the same author's

Natural History of Staffordshire, &c., 1686; Chas. Leigh's *Natural History of Lancashire*, &c., 1700, and Robt. Sibbald's *Scotia illustrata*, 1684. These were, of course, the forerunners of those numerous and important local histories of which the *Victoria History of the Counties of England* is such a conspicuous example. Quite as plentiful is the supply of similar periodicals published by local British-Colonial and American institutions.

It was in the eighteenth century (1737) that F. de Plantade published his *Mémoires pour l'histoire naturelle de Languedoc* in much the same vein as the British monographs. In Switzerland J. J. Wagner had written and published (Zürich) as early as 1680 the *Historia naturalis Helvetiae curiosa*, that subsequently appeared in several editions. A Polish treatise by Gabriel Rzaczynski appeared in 1721, a *Historia Naturalis curiosa Regni Poloniae.*

As will be seen by later references in this Introduction, the very useful, popular Associations for the Advancement of Science and similar societies in England, the United States, Germany, and France were not founded until well into the nineteenth century. Various International Congresses devoted to the study and discussion of zoology in all its branches have also done much to advance that science. The literary output of these conventions is listed in the present Catalogue.

Elsewhere the publications of modern Italian natural history societies are mentioned and catalogued. Here one may refer to the active *Società Zoologica Italiana* (founded in 1892), whose *Bullettino* has been published in Rome since 1882.

Periodical literature has been given a special chapter in this Introduction; hence little more will be said of it in this place except to draw attention to the fact that societies devoted to natural sciences often stand *in loco parentis* to those most important titles in all faunal literature, viz. the transactions, magazines, journals, archives, annals, &c. that constitute the body of *periodica zoologica*. As is well recognized, most works in science, whether systematic or popular, are largely compendia or extensions of articles or papers previously published in periodicals. For this reason the Blacker and other scientific libraries of McGill have striven to make their collections of journals as complete as possible, and to the captions of the Catalogue the reader is referred for more extended information regarding these original sources.

A number of writers on natural history during the period of the *renaissance* have already been mentioned. To these may be added more than one Italian, among them Ferrante Imperato (1550–1625), whose *Del l'Historia Naturale*, Naples, 1599, dealt with flora, fauna, and geology in a rather original fashion, and whose twenty-eight books on the subject went through several subsequent editions.

Another early Italian naturalist, Ippolyto Salviani, wrote in 1554 a work on aquatic animals; 256 (folio) leaves illustrated by 83 plates.

Later there appeared an interesting work by Francesco Carcano vel Sforzino, entitled *I tre libri de gli Uccelli da Rapina . . . con un trattato dei Cani, 1622.*

Still later, Joannes de Laet (1593–1649) published a disquisition (1648) on G. Marcgravius' and G. Piso's works, discussing the fauna and other natural products of Brazil.

Both the Osler and the Blacker Libraries have several titles headed by the name of that voluminous French writer Chas. de Lécluse (or Clusius) (1526–1609), whose zoological writings, translated into several European tongues, ought to be familiar to the student.

Another indirect result of the early foundation of scientific institutions was a race of investigators whose labors furthered greatly the onward progress of zoology. During the latter part of the eighteenth century this evolution in literature culminated in Linnaeus, the father of systematic biology, and in such men as John Hunter, the famous surgeon, founder of modern comparative anatomy, a

study that he helped to build on a firm foundation.

Of pre-Linnean names in systematic zoology, the most prominent is that of John Ray (1628–1705), or Wray (as he wrote himself until 1670), regarded by many as the founder of English natural history. Besides editing the works of his friend and pupil, Francis Willughby, he contributed much of value to the literature of zoology; indeed his writings greatly lessened the extensive labors of the great Linnaeus. He it was who defined the term 'species', until his day loosely applied in the classification of animal life. In naming the larger groups he made unwonted use of anatomical characters and it is, perhaps, not incorrect to speak of him as the father of scientific zoology.

Ray was sent to Cambridge where, among other subjects, he studied natural history and eventually held University offices. Obliged to leave college on account of religious differences he joined Willughby, member of a rich and noble family, who enabled him to devote himself entirely to scientific studies.

The two friends (the older man addressed the younger as 'amicus et Maecenas suus') went together on a two years' journey through Europe, travels that are recorded in *Observations topographical, moral and physiological*, 1673, in which Ray printed his famous *Catalogue of Plants not native of England*. Returning to England laden with collections of various kinds, they settled down in Willughby's country house to work on the collected material; but this scheme was interrupted by the death of the patron who, however, made Ray one of his executors and appointed him guardian of his two sons.

Ray finally moved to the cottage left him by his parents where for over twenty years he continued his numerous researches, the results of which have greatly affected the progress of science. Although he made botany his chief study, his literary work included all the divisions of zoology, folk-lore studies, &c. Ray's classification of vertebrates is not really as comprehensive as that he made of plants; indeed Willughby wrote most of the treatises on zoology. After the premature death of the latter his collaborator published, in his own name, a book on fishes and another on birds that were probably the combined work of both writers. Ray also wrote works on quadrupeds, reptiles, and insects, the first two being his most important contribution to vertebrate biology. All of the aforementioned titles will be found in this Catalogue.

The progress of zoological observation from Ray to Linnaeus was marked by the vigorous labors of many scientific investigators, among them Woodward, the paleontologist; Hans Sloane and Rumphius, collectors; Alex. Monro and Shaw (1692–1751), travellers; Réaumur, the entomologist, and Peyssonel, Linck, and Lhuyd, students of fishes.

Of the bountiful literature of this period the Compiler can mention only a few titles.

A classic treatise on zoology was the *Onomasticon Zoicon* of Walter Charleton, the first edition issued in 1668, followed by several others before 1680.

An early British local faunist was Joshua Childrey who wrote in 1661 *Britannia Baconica, or Natural rarities as they are found in every Shire.*

La Caccia dell'Archobugio (Bologna, 1672) of Vita Bonfadini is an illustrated 12mo of 96 pages that not only gives directions for hunting various animals with the arquebus but also describes quite carefully the hunted birds and mammals.

An important, early contribution to comparative anatomy was Samuel Collins's *A systeme . . . treating of the Body of Man, Beasts, Birds, Fish*, &c., 2 vols., illustrated, London, 1685.

The *Ichthyographia* (London, 1685) of Francis Willughby, folio, with many plates of fishes and an elaborate title-page, forms a most important atlas of piscine literature which should be in every zoological library. It has also a decidedly human interest, the full-page plates being dedicated to various well-known

members of the Royal Society, among them Christopher Wren and Samuel Pepys, the diarist.

Joannes Jonstonus, or plain John Jonston, although born abroad in 1603, was of British descent and a student at St. Andrews. After many years of research at various continental universities he returned to England, but again set out on his travels, graduated as a physician, and finally settled in Silesia. A brief notice is given in this Catalogue of his great zoological encyclopedia, alphabetically arranged, a rival of Gesner's heavy tomes. This is the *Thaumatographia naturalis in decem classes distincta*, 1633, in which he describes the marvels of the natural world. Five of the six books are devoted to man, the remainder to other animals. We may without hesitation bracket this immense work with the treatises of Aldrovandus and Gesner, and note that successive editions were translated into Dutch and (the Birds) into French. The artistic plates display, as a rule, German synonyms; the text matter shows generally a decided scientific advance over previous writings on the various subjects —on the fishes in particular.

Because he occupied a prominent place on the roster of seventeenth-century faunal encyclopedias one must speak of Edward Topsell, and especially of his *Historie of Foure-footed Beasts*, 1607, and the *Historie of Serpents*, 1607. Most editions of these cyclopedias are listed in our Catalogue.

Attention should also be given to Giovanni Germano, who, in 1625, wrote a *Breve e sustatiale trattato . . . delli più principali animali . . . con il corpo humano*, &c., illustrated with 12 copperplates of osteologic subjects, monkey, dog, cat, several birds, bat, man, *et al.* The writer was a Provençal Minorite friar, author of several works on anatomy and surgery. The present volume is very rare and is counted among the earliest works on comparative zoology. A fine copy is in the Blacker Library.

Contemporary with Germano's treatise there appeared two rare works—H. von Hoevel's *Neuwer wunderbarlicher Thiergarten*, &c., Frankfurt a.M., 1601, and Johann Sperling's *Zoologia physica*, 1661. The latter, edited and published after the author's death by G. G. Kirchmaier, exhibits original thought and is an effort to furnish a more rational classification of animals than had hitherto been attempted.

In 1595 the pastor H. H. Frey published his *Biblisch Thierbuch*, &c., now a very rare book, in which he shows us that God has given us animals for other purposes than food, sport, and game; for companionship, as teachers of morality, and so on. It was a new dogma and one feels like commending its perusal to a certain class of Christian 'sportsmen' of our own day, many of whom would be the better of a book on the rights of animals.

We find an extension of the teachings of Frey in the treatise of Wolfgang Frantze (*Historia animalium sacra*, 1612) that has been reprinted and translated many times. An English edition appeared in London, 1670. In addition to his recognition of the habits and domestic life of our animal brothers he proposes a rational system for their classification. As for 'dracones' he says, with much spirit and truth, 'the principal dragon is the devil'.

A more complete and popular sacred natural history is the famous *Hierozoicon* of Samuel Bochart, London, 1663, several subsequent editions of which were published elsewhere.

The encyclopedic period produced a number of other treatises, only a few of which will be mentioned here. One of these is often quoted—Daniel Sennert's *Epitome naturalis scientiae*, 1618. This author was a professor of medicine in Wittenberg, and attempted a crude classification of animal life. Earlier but not less important is the *Exotericarum exercitationum Liber XV*, Paris, 1557, of J. C. Scaliger, who notes many original observations of animal habits. Of some slight value, also, is the rare *Historia naturae* of Nieremberg, 1635, divided into 16 'books', after the ancient style.

Illustrations of zoological works by copper, steel, and wood engraving soon became common enough, and during this period numerous examples appeared of designs by artists famous

in other departments of art—Nicolas de Bruyn, C. J. Visscher, Adrian Collaert (or Collard), Adrian Bloemart, Saint Lucas, Albert Flamen, and Antonio Tempesta, most of whom are represented by titles in the McGill Libraries.

Reference has several times been made to early zoological observations found in treatises on medical zoology, i.e. on animal products as remedial agents in human therapeutics. Quite frequently discoveries in faunal and floral life made by early voyagers to the New World were confined to this category, incidentally noting facts of some value in comparative zoology and other sections of biology. Among these are books published by Oviedo (*Summario . . . dell'India occidentali*, 1535); José d'Acosta (*Historia natural . . . de las Indias*, frequently translated, 1st ed., 1590, Seville); Francesco Hernandez, physician to Philip of Spain, author of very important and well-known Americana (treatises on Central American flora and fauna), 1628–51; N. A. Recchi, another physician whose contributions to zoological history are enrolled in this Catalogue; the list ending with the works of still another physician, Guil. Piso, whose *Historia naturalis Brasiliae* and other works on the same subject (1648–58) are familiar to students of natural history.

Later, the Abbé Molina wrote his classic *Storia naturale del Chile*, the first edition of which was published at Bologna in 1782.

As previously mentioned, the same year (1555) that saw the appearance of Gesner's *Historia animalium*, including a discourse on birds, witnessed the publication of an illustrated *Histoire de la nature des oyseaux*, by Pierre Belon (1517–64). This writer's descriptions of birds were distinguished chiefly by an unusual attention to their internal structure as well by a description of their external appearances. He also compared avian with human structures and thus became one of the first of the comparative anatomists. Belon's works did not slavishly follow tradition; hence he avoided much of the medieval absurdity expressed in many earlier and some later publications. He adopted also a definite taxonomy, parts of which survive to the present day.

Newton (*Dictionary of Birds*, p. 6) speaks very favorably of the next important name on our list, that of Volcher Coiter, who published at Nürnberg in 1573 and 1575 two tractates embellished with well-executed cuts, in which the histology of bird structure is quite well described.

A physician named Caspar Schwenckfeld published at Liegnitz in 1603 a volume he called *Theriotropheum Silesiae* in which over 100 birds are described so accurately that they are readily identified.

It was in 1680–1 that Giovanni Borelli's *De motu animalium* appeared. This first edition (in the Blacker Library) is extremely rare, no copy being listed in the British Museum Catalogue (Nat. Hist.).

It was not until 1666 that Christopher Merrett printed the first edition of his *Pinax rerum naturalium Britannicarum*, a work of importance as it touches many sides of natural history.

In 1684 Sir Robert Sibbald published his *Scotia illustrata*, in which many of the fauna and flora of Scotland are depicted and described.

Despite the preponderance of medieval and other early books on the subject, *mammalogy* pure and simple has not, on the whole, excited as much literary interest through the ages as ornithology and probably not much more than ichthyology. As a consequence the treatises and periodicals on the first subject do not bulk as large on the shelves of most libraries devoted to natural history as do works on bird lore.

Ruminants naturally attracted the attention of early writers on domestic and general zoology. Johannes Aemylianus Ferrarensis in 1584 wrote a partial treatise on the subject while J. Geo. Agricola published two editions (1603 and 1617) on the deer and its use in medicine; and there are many others.

The horse and his allies have a still greater monographic bibliography to their credit;

many are the tractates dealing with equine anatomy and therapeutics. Several early Persian MSS. and printed books in the Blacker Library deal with this subject. In 1598 Carlo Ruini wrote a Book on the Horse that ran into several editions. The wild zebra was described about the same time by the voyagers Pigafetta and Thévenot.

Monographs on special zoological subjects began to appear at a relatively early date. We cannot do more than mention a few of the more important. Nicholas Tulp, Dutch physician, first described (*Observationes medicae*, 1641) the chimpanzee and other hitherto unknown animals; Wolfgang Waldung (*Lagographia*, &c., 1619) gave us an illuminating account of the biology of the hare; Jacob Thomasius furnished the first scientific account (*De Visu Talparum*, 1659) of vision in the mole; Olaüs Worm wrote a monograph (*Historia animalis quod in Norvagia*, &c., Hasniae, 1653) on the lemming, with anatomical figures; and there were published volumes too numerous to mention on such domestic animals as the dog and cat, a most interesting and important treatise being the original and admirable English monograph on the dog by John Caius (1510–73), various editions of which are shelved in the Blacker and other libraries of McGill. From the earliest times, by Persian, Indian, and European authors, the elephant has been a favorite monographic subject. Justus Lipsius, Gaspard Horn, and Joachim Praetorius, following the good example set by Petrus Gillius, described that pachyderm from personal observation.

There were several local histories published in America before 1700 that contain a few allusions to the fauna of the continent but these, in an elementary treatise like the present, may be ignored.

Among the important seventeenth-century writers on neotropical zoology, some of whom have already been mentioned, is George Marcgrav, who wrote much of the natural history portion of Johan de Laet's *Novus orbis . . . libri XVIII*, Lug. Bat., 1633. This important and well-trained medical mathematician contributed largely to our knowledge of the early zoology of South America.

The medical profession is further represented by several early adventurers to the New World, one especially deserving of mention, Jacob Bontius (1599–1631), a native of Holland, whose *Historia Naturalis* (1658) was published by Piso (q.v.). His explorations extended far afield as he also describes both the Mauritius Dodo and the Orang of Borneo.

CHAPTER IV

THE LITERATURE OF COMPARATIVE ZOOLOGY — THE SYSTEMATIC CLASSIFICATION OF VERTEBRATES — DARWINISM, ITS LITERATURE, ITS ADVOCATES, AND ITS CRITICS.

Galen—Vesalius—Ambrose Paré—Riolanus—V. Coiter—Fabricius ab Aquapendente—Severinus—Malpighi—Thos. Willis—Leeuwenhoek—Geraard Blaes—F. Redi—M. B. Valentini—Peter Camper—Alex. Monro—John Hunter—B. W. Hawkins—J. Leidy—Wiedersheim—W. N. Parker—C. A. Rudolfi—J. F. Meckel—Ducrotay de Blainville—Siebold and Stannius—A. A. Retzius—Everard Home—G. Germano—H. Milne-Edwards—St. George Mivart—Arnold Lang—J. W. Papez—R. W. Shufeldt—W. His—K. E. von Baer—H. C. Pander—E. R. Lankester—Charles Darwin—E. Haeckel—Kölliker—Remak—Anton Dohrn—G. Rolleston—G. J. Romanes—A. R. Wallace—Thos. Huxley—Edward Newton—Asa Gray—Herbert Spencer—H. W. Bates—Thos. Belt—C. Gegenbaur—E. Selenka—A. Willey—M. Fürbringer—The van Benedens—A. G. Butler—Ramón y Cajal—Altum and Landois—E. B. Poulton—Edward Forbes—A. Sedgwick—Gwyn-Jeffrys—Quatrefages—Alex. Agassiz—John S. Kingsley—Wyville Thomson.

WORKS on *comparative anatomy and zootomy* are fairly represented in this Catalogue. The earlier theses were mostly the records of work done by medical men who when interdicted from the dissection of human subjects turned to the lower animals for information on anatomy, physiology, and even psychology. Such authors and titles on comparative biology as are not catalogued here will usually be found in the *Bibliotheca Osleriana*.

Zootomy and live animal experimentation are, as every one knows, among the most valuable life-saving and productive present-day laboratory research works man can undertake. Preventive and curative medicine, zootomy, and zoophilosophy still march hand in hand, a procession albeit of meagre proportions as it began its journey with the first dawn of history.

In practice it commenced with Aristotle, Galen, Vesalius, Ambrose Paré, Eustachius, Fallopius, Riolanus, and many other names famous in medico-zoological literature. One notes that Volcher Coiter (Koiter, Koyter, or Coeiter) a Nuremberg doctor (already mentioned) presented almost the first important work on comparative anatomy, some details of which will be found in the annotated list of this Catalogue. The name of a contemporary of Coiter, Fabricius of Aquapendente, may properly be bracketed with him as the founder of comparative anatomy.

Mention has been made of Marcus Aurelius Severinus (1580–1656), professor of anatomy and surgeon at Naples. He wrote the first systematic treatise on comparative anatomy (*Zootomia Democritaea*, &c., Nuremberg, 1645, edited by J. G. Volckamer) entirely devoted to that subject. He made an effort to free his writings from the myths and doubtful observations of animal life that had accumulated in the literature of preceding centuries.

The discovery of the New World and its explorations furnished during the succeeding centuries many hitherto unknown specimens and much literary matter descriptive of animal forms. It was about this time also that certain early anatomists contributed accounts of their labors to the progress and history of comparative zoology. The chief of these, in addition to Fabricius and Severinus, were Harvey

(1578–1657); Malpighi (1628–94); Tyson (1649–1702); Swammerdam (1637–80), and Hooke (1635–1702), all of whose writings are represented in the accompanying Catalogue.

Thomas Willis (1621–75), Oxford professor of physics, is in some respects more important as a zootomic writer than most of his contemporaries, and his *De anima Brutorum*, London, 1672, must be mentioned here. Despite his false notions on the psychology of the (so-called) inferior animals, he is worthy of a place near the immortal Harvey.

The literature of comparative embryology is essentially modern and rests mainly upon microscopical observations, and yet, like other departments of zoology, it had its early beginnings. For example, Petrus Rommel wrote *De foetibus leporinis extra uterum repertis*, Ulm, 1680, and made sensible (comparative) comments thereon; and there are many other similar allusions in seventeenth- and eighteenth-century literature to this important science.

In the hands of Malpighi, Leeuwenhoek, and a host of later investigators the use of the microscope introduced systematic investigators to an entirely new world of scientific research.

As Victor Carus points out, the employment of alcohol, instead of the old methods of drying, rubbing with powders, &c. for the preservation of zoological specimens, greatly increased the number, variety, and value of museum collections everywhere and measurably advanced science.

Comparative anatomy thus encouraged advanced apace and numerous additional monographs on zootomy appeared—as the Compiler has already mentioned. A rather early and important treatise of this kind is the *Anatomia animalium* (Amsterdam, 1681) of Geraard Blaes, preceded in 1673 by the less important *Miscellanea anatomica hominis brutorumque*, &c., containing not only the writer's original observations but (illustrated) excerpts from other authors.

Among the brilliant comparative anatomists of the early eighteenth century was Francesco Redi whose seven-volume *Opere*, largely devoted to natural history, was published in 1712–30.

Another work of much the same scope is the *Amphitheatrum zooticum* of M. B. Valentini (1657–1729), professor of medicine in Giessen, almost an encyclopedia on the subject, and useful to-day as a work of reference. The figured anatomy of the American opossum and of many other interesting vertebrates is given; indeed this extensive work furnishes the best compendium of the numerous writings on comparative anatomy that appeared during the eighteenth century.

Reference to the literature of comparative biology (especially zoology) and its literary expositors shows that the labors of early (eighteenth century) writers on and investigators of lower animal anatomy uniformly improved upon the activities of their predecessors. Among these later scientists are J. N. Lieberkuhn, Peter Camper, John Hunter, and Peter S. Pallas.

Peter Camper (1722–89) was born at Leyden, graduated in medicine, and lectured at several Dutch universities. He is best known as the forerunner of modern craniology—Camper's facial angle is still in common use—and as a comparative anatomist who dissected the orang-utan and other higher apes and discoursed upon their comparative anatomy. He also published monographs on avian osteology, the structure of the ear in reptiles, fishes, and whales, and on the anatomy of the reindeer, elephant, and rhinoceros. He it was who, after a study of the anatomy of the human foot, condemned the footware of his period and suggested improvements on it.

In this connection, an early, noteworthy 'Arbeit' is J. F. Meckel's elaborate and well-illustrated anatomy of the Duck-billed Platypus, 1826; in it the famous surgeon described the flippers of this faunal paradox. An earlier work by Alex. Monro (1785) compared the structures of fishes with those of man and other animals.

Although they exercised some influence on

the progress of comparative anatomy the specific writings of Félix Vicq d'Azyr (*nat.* 1748) and of his teacher Condillac (1715–80) can have only a bare mention here.

We have had frequent occasion to speak of John Hunter but it is well to refer once more to that famous surgeon and naturalist. His father was a poor Scotch farmer. After a hard struggle to secure an education Hunter settled in London and devoted his time and energy to surgical practice, to anatomical studies, and to the establishment of the magnificent museum that is still the pride of the Royal College of Surgeons. Osler quotes an opinion of this remarkable genius from Buckle's *History of Civilization in England*: 'He was one of those extremely rare characters who only appear at very long intervals, and who, when they do appear, remodel the fabric of our knowledge. They revolutionize our modes of thought; they stir up the intellect to insurrection; they are the rebels and demagogues of science.'

Hunter's treatises on comparative anatomy show much originality of thought and are probably the most important contributions to the subject made during the eighteenth century. Of these works his *Observations on certain parts of the Animal Oeconomy*, 1786, has been several times reprinted and many times made the subject of comment and review.

Of the many other contributions to the subject our own Agassiz has written a monograph well worth the attention of the student, *The Structure of Animal Life*—six lectures delivered in 1866.

A minor contribution of some value is T. C. Eyton's *Osteologia Avium*, a 4to, with 113 plates. A more important treatise is B. W. Hawkins' *Comparative Osteology*, an atlas prepared under the supervision of Professor T. H. Huxley in 1864.

Among the long list of modern American teachers of paleontology and comparative anatomy stands the prominent figure of Joseph Leidy. One of his best known contributions to the former is his *Ancient Fauna of Nebraska*, 1854.

Of the many modern writers of textbooks on comparative anatomy none is surpassed by R. E. E. Wiedersheim, a translation of whose best edition (1886) was made in 1886 and in 1897 by the American zoologist W. N. Parker. The original work and its translations have passed through many editions.

Among the followers and successors of Cuvier, especially in the realm of comparative anatomy, was Carl Asmund Rudolphi (1771–1832) who, apart from his researches on parasites and his large work on general physiology (never completed), gave some attention to vertebrates, their cerebral and digestive organs, &c.

Even better known than Rudolphi was Johann Friedrich Meckel (1781–1833) whose studies in comparative anatomy are set forth in his *System der vergleichenden Anatomie*. He also developed a theory of evolution worthy to be mentioned with that of Lamarck, Wallace, and Darwin.

Among the early nineteenth-century exponents of comparative biology in France may be mentioned Henri Marie Ducrotay de Blainville (1777–1850). A native of Normandy and an enthusiastic pupil of Cuvier, he developed into a brilliant writer and teacher of the biologic sciences. He is best known in this connexion by his *Ostéographie* (on fossil vertebrates) and his *De l'organisation des animaux*.

Karl Theodor von Siebold (1804–85) and Friedrich Hermann Stannius collaborated to write a well-known treatise—it is something more than a textbook—a *Lehrbuch der vergleichenden Anatomie*, 1846, in which Stannius describes the vertebratae and Siebold the invertebrates. In this work especial attention is given to microscopical anatomy, in contrast to other pretentious works of the kind in which morphology is more or less neglected.

The pioneer comparative biologist of Sweden, as well as one of her foremost naturalists, was Anders Adolf Retzius (1796–1860), born in Lund. He studied under the foremost teachers of the day; indeed his work (and reports of it) on the Myxinoidiae formed the basis of

Johannes Müller's celebrated treatise, while his researches in anthropology are written into the records of modern craniologic terminology.

The anatomy of animals *per se* has a considerable literature of recent date, only a part of which can be mentioned here. Most authorities claim that Gerard Blasius (Geraard Blaes) was probably the first to publish an extensive work on the subject (*Anatomia animalium*, Amstel, 1681) made up of his own observations and illustrations incorporated with extracts from Malpighi, Willis, and others, ancient and modern.

That excellent work by Pander and Alton, the well-illustrated *Vergleichende Osteologie*, (1821–38) in two volumes, every good research library should possess.

More recent essays and treatises are accessible in considerable numbers. Among them is Sir Everard Homes's *Lectures on Comparative Anatomy*, 4 vols. (1814–23), and Supplement (1828), 2 vols., well illustrated and of great value to the student.

Another excellent and more modern work is George Rolleston's *Manual of Comparative Anatomy*, the second edition of which appeared in 1888.

Among more recent writers on the comparative anatomy of vertebrates (and of fauna in general) was John Sterling Kingsley; we note his *Comparative Anatomy of Vertebrates*, 2nd ed., 1917.

Of Henri Milne-Edwards (1800–85) the Compiler has elsewhere written. It may be added here that he was a native of Belgium but of English origin. A pupil of Cuvier, he came when quite a young man to Paris and became a professor there. In a treatise on the Crustaceae he worked out a system of comparative anatomy that still stands as a model for research students in zoology and other departments of biology.

Among the popular modern writers on comparative zoology was the celebrated Sir W. H. Flower. Of his many contributions to this department of natural science one thinks chiefly of his *Introduction to the Osteology of the Mammalia* (1870) whose third edition (1885) was written in collaboration with Hans Gadow.

There is not room at this time to do justice to the comparative and other natural history studies of St. George Mivart (1827–1900), some of whose works have elsewhere been mentioned and nearly all of whose treatises on vertebrate zoology are in the McGill libraries.

Of College textbooks the Compiler thinks very favorably of Arnold Lang's *Comparative Anatomy* (the English edition published in 1891–6), with a preface by Ernst Haeckel.

The science of *embryology* in the modern sense is a late development of scientific research. One of the earlier devotees of this branch of biology was Karl Ernst von Baer (1792–1876), a native of Esthonia. A good account of this erudite teacher and of his life and writings is given by Ludwig Stieda (q.v.). Baer's *De ovi mammalium genesi*, 1827, *Ueber Entwickelungsgeschichte der Thiere*, 1827, and 1837, are well known to advanced students. In these treatises Baer considers at length the development of the ovum in vertebrates.

Baer's successor at the University of Königsberg was Martin Heinrich Rathke (1793–1860), born in Dantzig. In his tractate, *Ueber die ruckschreitende Metamorphose* he records the results of his researches in comparative embryology. He also wrote quite a few monographs on the vertebrates and on marine zoology.

Another pioneer (and associate of von Baer) in embryology was Christian Heinrich Pander (1794–1865). He was born at Riga of wealthy parents and was able to give his whole attention to his favorite study. His treatise, *Vergleichende Osteologie*, did not attract as much attention as his purely embryologic works.

Francis Maitland Balfour (1851–82) the brilliant younger brother of the celebrated Lord Balfour, whose early death, the result of an accident, cut short a most promising career, wrote a number of monographs—one on the development of sharks—but he is best known to science as the author of *A Treatise of*

Comparative Embryology, that furnishes the development of the embryo throughout the whole animal kingdom.

In 1929 was published an excellent treatise of 544 octavo pages, on *Comparative Neurology*, by J. W. Papez. It is a well-illustrated textbook dealing entirely with the brain and nervous system of the vertebrate classes and will be found extremely valuable to advanced students.

Very useful anatomical monographs on birds have been written by R. W. Shufeldt (q.v.), especially his *Myology of the Raven*, New York, 1890.

A Swiss embryologist of note was Wilhelm His (1831–1904), born in Basel, where he became professor of anatomy before he was translated to Leipzig. He wrote, among other works, *Unsere Körperform*, Leipzig, 1874. A complete biography and bibliography of this naturalist has appeared in the *Anatom. Anzeiger*, vol. 25, pp. 161–208.

Another embryologist with a German name born outside the Fatherland is Alexander Wilhelm Goette (1840–1922) of St. Petersburg. He finally became professor in Strassburg. His chief work on vertebrates is *Die Entwickelungsgeschichte der Unke* (*Bombinator igneus*).

Of importance in this review of zoological literature are the writings of Oscar Hertwig (1849–1921) and his brother Richard (1850–1920), born in Friedberg-in-Hesse. The latter became professor of zoology in Munich, Oscar of anatomy in Berlin, and they both carried on valuable and original researches in embryology, including the development of the vertebrata. Oscar's *Allgemeine Biologie* (many editions, the 4th Jena, 1912) and Richard's *Lehrbuch der Zoologie*, Jena, 1890, are classic textbooks.

Much work on the *embryology of vertebrates* has been done in England. Prominent among these investigators is Edwin Ray Lankester (1847–1929), whose literary output has already been noticed. He gave much attention to papers dealing with the evolution of the articulata and pisces.

Darwin has been mentioned in several connexions. It may be added here that Charles Robert Darwin (1809–82) was born in Shrewsbury and married his cousin, daughter of the celebrated porcelain factor, Josiah Wedgwood. After a partial training in those rather opposed studies, medicine and theology, he interested himself chiefly in geology under Professor Adam Sedgwick. In 1831 he accompanied the *Beagle*, as unpaid naturalist, on her famous voyage round the world, and his scientific fortune was made. Despite the ill health that followed his retirement Darwin, then in affluent circumstances, worked persistently and chiefly on the evidence that supported his theory of evolution, the printed records of which immortalized his name. Although one does not find among Darwinia many purely zoological titles yet every student of the vertebrata and their literature should carefully read all the well-known works of Darwin on biology, especially his account of the voyage of the *Beagle*, just as one would absorb the *Natural History of Selborne* by another famous author who, in accord with the spirit of the modern scientist, 'kept his eyes steadfastly fixed on the truth, never casting side glances at the safety of his soul'.

Darwin soon had arrayed for and against him all the cohorts of the Church and many devotees of Science, the result being, *inter alia*, the publication of an immense mass of literature, generally controversial, most of which it is not the purpose of the Compiler to mention or catalogue, although a few of the more important, as they relate to vertebrate zoology, are on our list. It may be said, finally, as a solitary comment on the subject and as a sidelight on the spiritual poise and rare probity of the great naturalist, that the most valid objections to the conclusions of the *Origin of Species* are stated in the pages of that famous treatise.

Prominent among the advocates of the Darwinian theory was Ernst Haeckel of Jena who, seven years after the appearance of the *Origin of Species*, published his *Generelle Morphologie*, 1866. Two years later appeared his *Natürliche*

Schöpfungsgeschichte emphasizing the extreme value of embryology as a guide to the development of species, classification, and nomenclature.

Early in the discussion of evolutionary schemes appeared Steenstrup's remarkable *Alternation of Generations*. See the Ray Society's reprint, 1845.

Mention has been made of the fact that German investigators were in the forefront of zoological research and literary production, and the names of Kölliker, Remak, and Kowalesky must be added to the foregoing list. These writers and several of the following authors took part in the discussion of the doctrine of evolution.

A very prominent and voluminous writer, especially on vertebrate fauna, was P. L. Sclater, who especially distinguished himself (in 1857) by correlating the known facts of the geographical distribution of animals.

In 1836 Henry Doubleday published a systematic list of British birds as a contribution to zoologic nomenclature. The original edition of this monograph is very rare, 'wanting' in the British Museum Catalogue.

A note must here be made of David W. Mitchell's *Genera of Birds* in three volumes, 1844–9, written in association with G. R. Gray.

An essay of importance from the evolutionary viewpoint is W. A. Herdman's *Phylogenetic classification of Animals*, 1885.

Because of its anatomical basis one must not forget George Rolleston's *Forms of Animal Life*, Oxford, 1870.

This is not the place to do more than refer by name to even the other prominent writers (and their publications) that have added to the literature of evolution; especially in Germany 'Darwinismus' was and is regarded as part of the teachings of those *Naturphilosophen* that include, with many others, the English naturalist, Erasmus Darwin (1731–1802); Lamarck (1744–1829); Geoffroy Saint-Hilaire (1722–1844); Oken (1799–1851); Goethe (see his *Zur Naturwissenschaft*, Stuttgart, 1817), and Treviranus (*Biologie*, 1802–5).

One of the minor opponents of the Darwinian theories was Wm. Bateson, a believer in the 'discontinuity of variation' who, in 1894, wrote his *Materials for the Study of Variation*, &c.

While the original doctrine of evolution (especially its main principle, the survival of the fittest in the struggle for existence) will require modification in the light of modern biology, its literature still remains as one of the most important parts of zoological studies, the chief titles of which will be found in the present Catalogue.

Among the opponents and critics of the Darwinian theory that have contributed noticeably to biological problems and their literature one may mention Richard Owen, Kölliker, Agassiz, Albrecht Wigand, von Baer, and Quatrefages de Bréau, with a passing reference to such scientific weaklings as S. Wilberforce, Bishop of Oxford, who may be regarded as the representative of that numerous array of theologians who hastened to don the ancient panoply of ecclesiastic warfare in defence of their medieval science. One of the best expositions of Darwinian theories is G. J. Romanes' *Darwin, and after Darwin*, 1892–7, in three volumes.

Of the many men of scientific attainment who became advocates and exponents of the theory of evolution in its several phases first place must be given to Alfred Russell Wallace, by many believed to be the co-discoverer of the great theory. Associated with him were such authorities as Lyell, Thos. Huxley (whose numerous contributions to the various departments of vertebrate zoology are listed in the Catalogue), Edward Newton, Asa Gray, Radl, Sir Joseph Hooker, and Herbert Spencer; indeed, both in England and in Germany—the two centers of biological progress—evolutionary theories and hypotheses were for many years dominant subjects of discussion in natural science.

One of the best of the recent reviews of the various branches that have grown out of the large trunk of Darwinism is Professor George Dorsey's *The Evolution of Charles Darwin*,

1927; but there are dozens of other similar studies, many of them more elaborate and profound, few of which can be mentioned here.

The centenary of Darwin's birth and the fiftieth anniversary of the publication of the *Origin of Species* was commemorated by the printing of a series of Essays edited by A. C. Seward, Cambridge, 1909.

A companion of A. R. Wallace in a journey round the world was Henry Walter Bates (1825–92). After a year of exploration Wallace returned to England, later to make his famous journey to the East Indian archipelego and to write the classic volumes listed in this Catalogue. Bates remained in Brazil and subsequently wrote that fascinating story, *The Naturalist on the River Amazons*, the first edition of which (in 2 vols.) was published in 1865.

Wallace made many contributions to zoology, a most important one being the account of his discoveries in animal geography. He was, in fact, a principal pioneer in the study of animal distribution on the earth's surface. It was the treatise that he wrote on the disposition of faunal life in Borneo, Lombock, and the Celebes, and which he submitted to Darwin, that impelled the latter to make a simultaneous reading before the Linnean Society in 1858, of his own and his friend's views on animal and plant struggle for existence and its effects on the origin and specific history of floral and faunal forms.

Thos. Belt in his *Naturalist in Nicaragua*, 1874, also furnishes many germane observations on animals and plants in reference to the theory of evolution.

Carl Gegenbaur (1826–1903), a well-to-do graduate in medicine and pupil of Virchow, taught in Heidelberg most of his mature life. Here it was that he wrote his textbooks, the *Grundriss* and *Grundzüge d. vergl. Anatomie*, 2 edns., 1859 and 1874, Leipzig. He worked in all the biological fields but towards the end of his career devoted himself to the vertebrata, especially to their embryology and comparative anatomy, as brilliantly exposed in his *Untersuchungen zur vergleichenden Anatomie der Wirbeltiere*, 4to, Leipzig, 1864–72. Still later he completed the celebrated *Vergleichende Anatomie der Wirbeltiere* (in several editions, 1898 and 1901 among them), which summed up the labors of a lifetime. This elaborate work served for a full generation as the textbook of what may be termed the (modern) Gegenbaur school of comparative anatomy.

The best known pupil and follower of Gegenbaur was Max Fürbringer (1846–1920) who followed his teacher from Jena to Heidelberg as prosector. He published a number of monographs, and will long be remembered by ornithologists for his monumental *Untersuchungen zur Morphologie und Systematik der Vögel*, 2 vols., 1888. This remarkable study of avian anatomy is an enduring superstructure built on the firm foundation of morphological research and it forms the basis of a rational classification of birds now universally accepted. This monograph also plays an important part in the indispensable Bronn's *Klassen u. Ordnungen des Tierreichs*, Vol. vi, Abt. 1–5 of which is wholly given up to the morphology of the vertebrate sub-classes.

The career of that brilliant apostle of *monism* and versatile exponent of the Darwinian philosophy in certain of its phases, Ernst Heinrich Haeckel, calls for further comment. His life dates are 1834–1919 and he was born at Potsdam. After a thorough grounding in biology (mostly under Johannes Müller) and medicine, he was, in 1862, called to the chair of zoology in Jena and held it until 1909. The influence of Haeckel on the progress of biology has been immense. Although he devoted most of his time and energies to research involving only the invertebrata his *Generelle Morphologie der Organismen*, 1866, and other works affect higher organisms more deeply than many a treatise with a purely zoological title. His extremely popular *Natürliche Schöpfungsgeschichte*, 1868, is known to English readers through the translation 'History of Creation'.

As a comprehensive and very important

contribution to the embryology of vertebrates the student should know E. Selenka's *Studien ueber Entwickelungsgeschichte der Thiere*, in five volumes, 1883–92, continued after the author's death by several colleagues.

Modern instances of studies in faunal development may be found under the (present Catalogue) titles by Arthur Willey, professor of zoology in McGill University, among them *Amphioxus and the Ancestry of the Vertebrates*, 1894, with a preface by H. R. Osborn; also under various captions of the former's *Zoological Results*, 1898–1902. Doctor Willey has recently (1930) published a complete review of animal development in his treatise, *Lectures on Darwinism*.

The two (Belgian) van Benedens, father and son, demand some attention. The former, P. J. van Beneden, is the author, among other works, of a *Histoire naturelle des Delphinides des mers d'Europe*, 1889, 8vo, Bruxelles. The son—Édouard van Beneden (1845–1910)—was best known as a professor at Liége and the editor-publisher of the *Archives de biologie*. One of his earliest monographs is entitled *Recherches sur la Signification de l'Œuf*, 1870.

A very useful handbook is A. G. Butler's *How to Sex Cage Birds*, 1907, a research in which Maud Knobel (q.v.) and others have long been engaged.

Although the numerous classes of specialists in *modern cytology* undoubtedly follow a most important and interesting branch of biology having zoological relations, yet, as previously stated, the Compiler feels that he must draw the line when it comes to giving a review of their literary productions. In this connection the decided effect upon the progress of vertebrate zoology produced by the labors and writings of such tireless investigators as Bütschli, Flemming, Nägeli, William Bowman, Ramón y Cajal, Ehrlich, Nissl, Theodor Engelmann, Studnička, F. C. C. Hansen (and fifty others) will be acknowledged at once by the advanced student, but the story of their lives and literary products must be left to the bibliographer—more diligent and competent than the Compiler—to do full justice to all the subdivisions of historical biology.

A well-known and useful work of reference for the student is Altum and Landois' *Lehrbuch der Zoologie* that has passed through numerous editions and translations, one of them quite recent and up-to-date.

Incidentally, attention may be drawn to a work on an important physiological subject, E. B. Poulton's *Colours of Animals*, London, 1890. The same author has also collected and issued under the title of *The Hope Reports* (1897–date) valuable extracts and reprints from various journals on biological subjects.

One of the best known works on *Animal Intelligence* (and Behaviour) is the treatise of G. J. Romanes, 1883.

Studies of *marine fauna* have already been mentioned. The use as part of the equipment of scientific expeditions of the improved ocean dredge and trawl has provided abundant material for such investigators and writers as E. Forbes, Gwyn-Jeffreys, Norman, W. B. Caldwell, Adam Sedgwick, Bateson, the two Sarasins, Quatrefages, Denielsson, Alex. Agassiz, Carpenter, and Wyville Thomson.

CHAPTER V

TRAVELOGUES OF EXPLORERS — REPORTS OF VOYAGES AND SCIENTIFIC EXPEDITIONS CONTAINING DESCRIPTIONS OF VERTEBRATES — JOURNEYS OF NATURALISTS ROUND THE WORLD — GOVERNMENTAL AND PRIVATE SURVEYS AND EXPLORATIONS.

John Josselyn—José d'Acosta—The Voyages of Capt. Cook—L. A. de Bougainville—J. Byron—H.M.S. Hecla and Fury—The Uranie and Physicienne—H.M.S. Chanticleer—La Coquille—Voyage of the Astrolabe—H.M.S. Beagle—The Novara—Curaçoa—H.M.S. Alert—Challenger—Vega—Marchesa—Travailleur and Talisman—Wm. Dampier—Geo. Bennett—Geo. Barrington—The S.S. Investigator—The S.Y. Scotia—Horn Scientific Expedition—Voyages to the Antarctic of the Southern Cross and Terra Nova—Die zweite Deutsche Nordpolfahrt—U.S. Exploring Expedition under Wilkes—Second Yarkand Mission—Felix de Azara—P. Sonnerat—Peter Pallas—A. von Humboldt—Voyages round the World—La Pérouse—Azara and Rengger in the Southern Hemisphere—The travels of Prince Wied-Neuwied, Mikan, Natterer, J. B. Spix, F. B. Martius, Max Perty and Agassiz in Brazil—Reports of voyages to South America by d'Orbigny, Poeppig, Claude Gay, Tschudi, de Castelnau, Schomburgk, Burmeister, Louis Agassiz, Bates and Alfred R. Wallace—U.S. Astronomical Expedition to the Southern Hemisphere—E. H. Shackelton—La Belgica—Expeditions to Central America by Ramón de la Sagra, R. Schomburgk, Felipe Poey, Gundlach and Sallé—Early treatises on American Zoology by J. B. and Wm. Bartram, Thos. Jefferson, John Lawson, J. K. Townsend, B. S. Barton, R. Harlan, Gundlach, H. Sloane, J. B. Labat, Audubon and Bachman, J. E. Holbrook, J. V. G. Smith, David Humphrey, Rafinesque-Schmaltz and E. Hitchcock—Gran-Chaco Expedition—Natural History Expeditions to African Wilds—Voyages to Indo-China, Thibet, China and the South Seas—Scientific Explorations of South America, Alaska and Australia.

PRECISE identification of species as well as exactitude in describing them were greatly facilitated by the writings of those naturalist-explorers who collected specimens in their native habitat. These venturesome lovers of wild life, especially the early adventurers who penetrated into unknown areas of mountain stream, and sea, often at the risk of their lives, deserve a fuller mention than can be given them here; indeed the Compiler regrets that limited space will oblige him to omit even a passing reference to many accounts furnished by voyagers over wide oceans and across continental stretches who gave reliable descriptions of fauna that have added measurably to the literature of zoology.

As will be further noted, nineteenth- and twentieth-century travelers with some knowledge of natural history generally devoted a chapter or two to the fauna of the localities visited, and often furnished trustworthy lists of birds and other animals previously unknown to science.

As the Compiler's own continent was among the first to be systematically explored he will speak of some reports of travels in and of a few expeditions dispatched to that quarter of the world.

The earliest English work on American natural history in general resulted from two visits between 1638 and 1671, made by John Josselyn. Several editions of his *New Englands rarities*, in the McGill libraries, are of the greatest interest to the student.

Perhaps Josselyn was stimulated to give these experiences by the voyages of José d'Acosta, whose *Historia natural de las Indias*, &c., appeared at Leon in 1590, with an English translation, 1604.

One thinks naturally of the published explorations of the Hakluyt Society, of Captain James Cook, especially of the zoological observations of the latter made in H.M.S. 'Endeavour', 'Resolution', 'Adventure', and 'Discovery', and of a hundred other adventurers about which so many volumes have been written.

Although it is not the purpose of the Compiler to mention or attempt an evaluation of all the numerous naval expeditions (governmental and private) that, especially during the nineteenth century, engaged in every form of zoological research, it is thought desirable to draw attention at this juncture to a few not already described. The student will find a selection of these in the Index and a much larger and usually annotated list in the Catalogue, where they are entered under the name of the vessel or vessels engaged in the work, under the name of the commander of the expedition, under the name of the zoologist or zoologists on board, or under all three captions.

A famous early naturalist-explorer was L. A. de Bougainville whose *Voyage autour du monde par 'La Boudeuse et l'Étoile'*, 1766–9, was the first important expedition of his long career; another is the *'Resolution' Voyages*.

Among early scientific voyages is J. Byron's expedition in H.M.S. 'Dolphin', 1764–5, reports of which are given in several editions and their translations into foreign tongues, but perhaps the most important of the early nineteenth-century voyages are the following: that of the 'Hecla and Fury', 1818–28, W. E. Parry; of the French expedition in the 'Uranie' and 'Physicienne', 1824–6, associated by naturalists with the name of Louis de Freycinet; the voyage to the Southern Atlantic of Webster in H.M.S. 'Chanticleer', 1828–30; the expeditions of the 'King George and Queen Charlotte', 1826, in connection with which are coupled the names of George Dixon and Nathaniel Portlock; and of 'La Coquille', Louis I. Duperry, 1826–30.

The famous voyage of the 'Astrolabe', 1830–35, is intimately associated with the valuable scientific work of J. S. C. Dumont d'Urville who later (1842–54) made several voyages in the 'Astrolabe' and 'Zélée'. Darwin's world-famous expedition in the 'Beagle', 1838–44, has already been mentioned.

These voyages and the reports on their zoological discoveries were followed in quick succession by many other important events of like character, e.g. the famous voyage of the 'Thetis and Espérance' (1837) associated with the familiar name of Louis A. Bougainville; after which came the subarctic voyage of the 'Recherche', then that of the well-known 'Blossom', Capt. F. W. Beechey, in 1839; then the second voyage of 'La Coquille' in the same year, coupled on this occasion mainly with the fame of the ornithological and other reports of R. P. Lesson; also during 1839 the voyage of 'La Favorite' and the name of C. P. T. Laplace. These were followed in 1841–52 by the expeditions and discoveries of 'La Bonite' so well reported by the famous Auguste Vaillant; by the voyages (1843–4) of the 'Sulphur' and Richard B. Hinds; by the valuable discoveries made by Arthur Adams and others during the voyage of the 'Samarang', 1843–6, and the many adventures (1844–75) of the famous 'Erebus and Terror' (elsewhere mentioned) under the scientific aegis of Sir John Richardson and John E. Gray.

In 1852 John Macgillivray described the birds of the 'Rattlesnake' voyage to New Guinea, &c.

Shortly before this a privately conducted expedition was made to the Far East (see

Voyage dans l'Inde, by Victor Jacquemont) whose zoological aspects were, in part, reported by Isidore Geoffroy Saint-Hilaire, while J. B. Juke's name is associated with the voyage of H.M.S. 'Fly' during 1842–6, the *Narrative* dated 1847. Between 1846–55 took place the scientific expeditions of the 'Vénus', for reports of which we are mainly indebted to Abel A. du Petit-Thouars. Specially valuable for geographic and distributional records were the voyages (1852–4) of the 'Herald', noted by Edward Forbes.

The next important marine expedition was that of the 'Novara' in 1865, associated with the name of the Austrian commander, B. von Wüllerstorf-Urbair. In 1880–3 the *Expéditions scientifiques du Travailleur et du Talisman* furnished mainly marine records.

In the year 1873 the voyage of the 'Curaçoa', under the scientific care of Julius L. Brenchley, discovered many new zoological species. Although not published until 1884 the *Report on the Zoology of H.M.S. 'Alert'*, 1881–2, was issued by the British Museum; not, of course, to be confused with the voyage of the 'Alert' and 'Discovery' to the Polar Sea in 1875–6, when H. W. Feilden described the mammals and birds and A. Günther the fishes.

The next most important scientific expedition was the famous voyage (1881) of the 'Challenger' under C. Wyville Thomson, the zoological reports of which fill many valuable volumes. Six years later (1887) Michael A. Healy directed the expedition of the 'Corwin' and about the same time the 'Vega' sailed round the northern world, the reports of whose scientific work are mostly furnished by N. A. E. von Nordenskiöld in several editions and languages. The year before (1886) F. H. H. Guillemard made many valuable observations and discoveries during the well-known voyage of the 'Marchesa', and the reports of that expedition are among the fundamental treatises of systematic zoology. In 1888 Alphonse Edwards described the scientific expedition of the 'Travailleur' and the 'Talisman', 1880–3.

The student of zoological literature should by all means familiarize himself with the reports of these scientific expeditions that registered for the first time definite knowledge of much of the world's natural history.

Australasia and Oceania in general have always been favorite exploration areas for seafaring explorers—naturalists in particular. William Dampier (1652–1715) was among the best known of these adventurers and his voyages around the world included an expedition to New Holland in 1699.

At this point may be mentioned, among notable voyages, the several visits of the naturalist George Barrington to New South Wales and his account of them, published in 1795–1802.

A combined history of voyages interesting to naturalists is the first edition, in four volumes, of John Hawkesworth's *Account (1773) of the Voyages of . . . Commodore Byron* (1764–6); *Wallis* (1766–8); *Carteret* (1766–9), and *Cook* (1768–71).

More recently A. W. Alcock under the caption *A Naturalist in the Indian Seas*, 1904, reported on collections made in the Survey Ship 'Investigator'.

Wagner's *Reisen in Algier*, 1841, resulted in large collections of birds and mammals which he described, while H. Schlegel reported on the amphibians.

As elsewhere shown, the numerous expeditions and voyages dispatched by the Federal Government of the United States to all parts of the world (including the American continents) as well as the exploration parties sent out by the many Departments, Bureaux, and Surveys, both of the central government and of the various states, have furnished hundreds of reports on vertebrate zoology. The present Index and the annotated Catalogue have listed them, mostly to be found under the caption *United States*. In some instances these valuable contributions to natural history have been published separately, in which case such 'author's editions' are also entered under the name of the writer.

The birds and mammals of Alaska collected by the McIlhenny expedition to Point Barrow in 1900 are fully described by Witmer Stone.

Among the more recent expeditions is that of the Steam Yacht 'Scotia' during 1902–4, under the auspices of the Scottish Oceanographical Society. See 'Scotia' in this Catalogue.

George Bennett (1804–93) was an intrepid and instructed explorer-naturalist who in 1834 published an account of his *Wanderings in New South Wales Batavia*, &c., in two illustrated volumes as part of his journeys around the world. In 1860 he issued from London an amended history of his *Gatherings throughout Australasia*, in which he describes many vertebrates.

An important exploration of Central Australia is the Horn Scientific Expedition, whose reports were edited in 1896 by Baldwin Spencer, the vertebrate zoology being described by specialists.

Among the explorations best known to systematic zoologists is John Whitehead's Expedition to North Borneo (1893) productive of many species new to science.

One of the most valuable reviews of the fauna of New Guinea is found in C. E. A. Wichmann's *Nova Guinea*, whose as yet unfinished publication (in French and Dutch) began in 1906.

One of the most successful voyages to the Antarctic regions from the viewpoint of vertebrate zoology was that of the 'Southern Cross'. In 1910 the 'Terra Nova' made a somewhat similar voyage under another commander, Capt. R. F. Scott. See Br. Mus. Cat. (Nat. Hist.).

Trevor-Battye's *Ice-bound in Kolguev*, 1895, furnishes 'a chapter in the [natural history] exploration of Arctic Europe' well worth reading.

Although comparatively little space was given to vertebrate zoology in the early volumes of F. Nansen's *Norwegian North Polar Expedition*, 1893–6, yet R. Collett's and F. Nansen's brief account of the Birds must be mentioned.

More productive of literary effort are the reports on *Die Zweite Deutsche Nordpolarfahrt . . . in 1869 und 1870*, edited by G. Hartlaub and M. Lindeman, when the anthropology, mammalogy, ichthyology, and ornithology of the expedition were fully described.

A more recent North Polar Expedition for scientific purposes is the Austrian *Internationale Polarforschung*, 1882–3, when the collection of vertebrates was described in a three-volume report.

Die Preussische Expedition nach Ost-Asien, whose *Zoologischer Theil* was edited by E. von Martens in 1867–76, is also to be borne in mind.

The *Narrative of the U.S. Exploring Expedition around the World* under Capt. Charles Wilkes, 1838–42, is of considerable importance in scientific literature. Chas. Pickering, J. P. Couthony, Jas. D. Dana, Titian R. Peale, and Horatio Hale gave accounts of their special activities in the *Reports of the Scientific Results*. The first edition (now extremely rare) of this government expedition was published in 1844; a new edition, New York, 1856, was printed in five volumes, with additional text and plates.

One of the outstanding examples of worthy contributions of travelers to science is E. Diffenbach's *Travels in New Zealand*, 2 vols., 1843, in which the mammalia, reptiles, and amphibia are described by J. E. Gray, the birds by G. R. Gray, and the fishes by J. Richardson.

One of the best known Asiatic scientific expeditions was that of the Second Yarkand Mission, 1878–91, the collections of which were examined by specialists; Blanford, mammals; R. B. Sharpe, birds; F. Day, fishes, &c.

The majority of naturalist-travelers to the New World seem to have visited South America during the past two centuries, so many indeed that there will be space for mentioning only a small proportion of them.

Don Felix de Azara (1746–1811), an engineer of noble birth, was detailed by the Spanish Government to delimit the frontiers of Paraguay. He devoted much of his time to impor-

tant observations of South American fauna, part of which is reported in his *Apuntamientos para la Historia natural de los Quadrúpedos*, &c., 2 vols., Madrid, 1802. There is a French translation of this valuable work by Moreau de Saint-Méry, also in 2 vols., Paris (1801). Azara lived 20 years in South America, during which period he wrote further accounts of Central and South American fauna. This work was published after his death by C. A. Walckenaer; there is, also, a French translation by Sonnini, 1809, in four 8vo vols., and a folio atlas.

Some of the best known expeditions to the Far East were those of Pierre Sonnerat who visited (and described the natural history of) China, Papuasia, Ceylon, the Philippines, &c. between 1774 and 1781.

The collections of vertebrates made during Zichy's *Dritte Asiatische Forschungsreise*, 1901, were described by well-known naturalists.

As several times indicated, our early knowledge of Russian fauna is largely due to the labors of Peter Pallas whose journeys to various parts of the Empire have been described in several languages. These publications are to some extent listed in the present Catalogue, attention being especially called to his *Reise durch verschiedene Provinzen des Russischen Reichs*, &c., 1771–6, in three volumes and to his three-volume quarto entitled *Zoographia Rosso-Asiatica*, 1811–42, completed long after his death. Peter Simon Pallas was born at Berlin in 1741, and in 1768, having acquired an international reputation as a naturalist, was invited by the Empress Catherine to St. Petersburg. He spent six years (1768–74) in explorations of both European and Asiatic Russia, collecting an enormous array of scientific (mostly zoologic) specimens which formed the basis of many ethnic, geographic, floral, and faunal treatises. He finally settled in the Crimea and died there in 1811.

In 1799–1804 Alex. von Humboldt and Aimée Bonpland visited South America. The original German account of the expedition (in the Blacker Library) was translated and issued in 2 vols., 57 plates, under the title *Recueil d'Observations de zoologie et d'anatomie comparée; faites dans l'Océan Atlantique*, Paris, 1811–32. This record is not only remarkable for the faithful description of the animal life encountered during the voyage but is noted for the discovery of many new species.

The Compiler has drawn frequent attention to the many *Voyages autour du Monde* listed in the appended Catalogue as productive of much of our literature on vertebrates. Of these circumnavigations that of Count La Pérouse in 1785–8 is among the best known. It is also well to read Labillardière's *Three Years' Voyage in search of La Pérouse*, either in the original or in the English translation.

Prince Maxmilian of Wied-Neuwied wrote a *Beiträge zur Naturgeschichte von Brasilien*, four octavo volumes, giving a classic account of his travels in that state and neighbouring countries during 1815–21. The work was translated into French and published, like the German earlier edition, in Weimar. Among the many other naturalists who have visited Brazil and described its flora and fauna are J. E. Pohl, who gave his attention almost exclusively to botany; J. C. Mikan (1769–1844), author of *Delectus florae et faunae Brasiliensis*, 1820–5; Johann Natterer, who wrote *Zur ornithologie* (and *zur Säugethiere*) *Brasiliens*, 1868–71, as the result of *Reisen* in that country, while J. B. Spix and Carl F. P. Martius, under the patronage of King Max Joseph of Bavaria, visited Brazil and spent three years there, recording their floral and faunal discoveries under several titles, that of Martius being (*Eine*) *Reise in Brasilien*, 3 Tle., München, 1823–31. Spix (1781–1826) was born in Hochstaedt, and died in Munich; he studied first theology and afterwards medicine.

Martius, born in Erlangen, son of a chemist, was ennobled for his scientific services and died also in Munich. Spix wrote a series of monographs describing many species new to science in the whole animal kingdom. The titles of this series are uniform, e.g. *Serpentum Brasiliensium Species novae*, 1 vol., 26 col.

pl. They are all listed in the accompanying Catalogue.

In 1820–1 Prince Max of Wied-Neuwied (1782–1867) visited Brazil and in 1832–4 North America, when he made a study of their flora and fauna. See the annotated titles in this Catalogue.

Accounts of many hitherto undescribed Brazilian fauna are also given by Max Perty (the invertebratae in *Delectus animal articul.*, 1830–1, 40 col. pl.) and by Agassiz, who specially studied the fishes (*Selecta genera et species piscium*, Monachii, 1829–31, fol., 100 pl.).

Johann R. Rengger (1795–1832), who was born and died in Aarau, spent eight years in South America and has given us a noteworthy account of the mammals of Paraguay (*Naturgesch. der Säugethiere von Paraguay*, 8vo, 1830, Basel).

One should not forget that among the earliest travels of Alfred R. Wallace was his exploration of the River Amazons, a description of whose natural history he published in 1853.

During 1826–33 Alcide Dessalines d'Orbigny (1802–57) the well-known professor of paleontology at the *Jardin des Plantes*, visited South America and wrote an account of his travels and discoveries that is a classic of zoologic literature (*Voyage dans l'Amérique Méridionale*, &c.). This large quarto was published in 90 parts illustrated by means of 415 plates. It usually appears bound in 7 volumes text and 2 volumes in atlas form. D'Orbigny's contributions to the literature of the British Museum collections (shells, molluscs, &c.) are even better known to students.

From 1854 to 1885 appeared numerous original monographs in German, Spanish, French, and English, describing the zoology of travels to various countries in South America by the famous naturalist C. H. C. Burmeister, especially to Argentina and Brazil. In passing, one may also call attention to Edward Whymper's *Travels amongst the Great Andes*, 1892.

Eduard Friedrich Poeppig (1798–1868) wrote a picturesque account of his travels in the Americas that began with such high spots as Philadelphia and Cuba and ended in Peru, Chili, and the Amazon Rivers. In it (*Reise in Chile, Peru, &c., 1827–32*, 2 vols., and atlas of 16 plates, fol., Leipzig, 1835–6) he gives a brief review of the fauna.

Of much value is the scientific description of Chilean natural history afforded by the writings of the French author Claude Gay (1800–73). The best of his works, of which Gay acted largely as editor, was published by the Government of Chile. It is the monumental *Historia fisica y politica de Chile*, &c., in 28 vols. text, and 2 vols. atlas. Of the eight volumes devoted to zoology, the mammalia are treated by Gay and the aves by O. Des Murs. The evertebrata, botanica, and other subjects are voluminously considered by numerous collaborators.

A useful treatise on the zoology of Peru is J. J. von Tschudi's *Untersuchungen ueber die Fauna Peruana*, &c., 1844–7, 4to, St. Gallen, the result of a five years' residence in South America.

Count Francis de Castelnau (1812–80) published in 1847, under French Government auspices, a most valuable report (*Expéditions . . . pendant les années 1843–7*, 180 pl., 14 vols., Paris) on the zoology of portions of South America, the result mainly of expeditions from Rio Janeiro and Lima. Accounts of the zoology are furnished in three quarto volumes.

In 1863 appeared the first edition of that much reprinted classic, Bates's *The Naturalist on the River Amazons*. It should be carefully read by every student of South American natural history.

In various connections the *Schwedische Südpolar-Expedition* (1901–3) has had references, especially to the names of A. J. E. Lönnberg (aves and pisces) and K. A. Anderson (the higher animals in general).

In 1909 was published E. H. Shackleton's *Heart of the Antarctic* in two volumes, giving an account of discoveries made during the voyage of the 'Nimrod', 1907–9. J. Murray edited the

Biology of the expedition which was not fully reported until the *Reports of the Scientific Investigations* were made (a second edition) in 1911.

The scientific expedition of the Belgian 'La Belgica' to the South Pole in 1897–9 did not gather many vertebrates, except pinnipeds, cetaceae, and marine fishes. The reports were published in 1901–13.

In 1902–3 the *Deutsche Süd-polar-Expedition* reported its *Bericht* on the natural history of the 'Gauss' voyage.

Robert Hermann Schomburgk was born at Freiburg near Rossbach in 1804. In 1831 he made a scientific survey of the Virgin Islands where he was established as a merchant. During 1831–5 he explored and reported upon (see his treatises on the subject) British Guiana on a commission from the Royal Geographical Society. In the latter country he discovered the magnificent Victoria regia lily during a trip up the Berbice River. He was knighted in 1844. In addition to his various scientific works on British Guiana he published a very useful *History of Barbados*, and after holding several offices under the British government he died in 1865 at Schöneberg, near Berlin. He accompanied his brother Richard on several exploratory expeditions.

As previously mentioned, one of the best reviews of the fauna of northern South America was written by Richard Schomburgk. His valuable *Reisen in Britisch-Guiana in den Jahren 1840–44*, Leipzig, 1847–8, has, in part, been translated into English (1922) by the Compiler's friend, Walter Roth, the Director of the British Guiana Museum.

Another valuable contribution to the literature of South American fauna is the *Physikaische Beschreibung der argentinischen Republik*, 5 vols., 1875–80, Buenos Aires, by Carl Hermann Burmeister (1807–92), the accomplished naturalist and traveler. A French translation of this important work was made by E. Maupas and E. Daireaux, Paris, 1876–86.

A later report of value (already referred to) is Louis Agassiz's *Scientific Results of a Journey in Brazil*; the Thayer Expedition, 1870.

One of the most recent exploratory expeditions for natural history purposes is that to the Gran Chaco area (Argentine, Bolivia, and Paraguay). A volume on the bird-life of that important section of South America has been written (1930) by Prof. Alfred Laubmann of München. Other volumes are in the press.

Not to be passed over lightly as a contribution to the faunal history of Central South America is *Travels on the Amazon and Rio Negro*, 1870, by Alfred R. Wallace.

An earlier but even more valuable addition to our knowledge of South American fauna are the reports of what is generally known as the *U.S. Naval Astronomical Expedition to the Southern Hemisphere . . . 1849–52*, under Lieut. J. M. Gilliss, 6 vols., published by the government at Washington, 4to, 1856. The vertebrata are treated (in vol. ii) by S. F. Baird (Mammals); J. Cassin (Birds), and C. Girard (Reptiles and Fishes).

The various reports of the famous Wilkes U.S. Exploring Expedition during 1838–42 have been fully discussed elsewhere in this Introduction. A photostat copy of the extremely rare *Narrative* of 1845 is shelved in the Blacker Library. See the appended Catalogue.

The well-known *Historia fisica* of Ramon de la Sagra (director of the Botanical Gardens in Havana) dealing, *inter alia*, with the fauna of Cuba, has been touched upon elsewhere in this Introduction. A French translation of this important work was published in 1840–58.

Another naturalist, Felipe Poey (1799–1891) wrote *Memorias sobre la historia natural . . . de Cuba, Habana*, 1851–8.

The first local work of importance, i.e. listing any considerable fraction of faunal life of the United States, is John Lawson's *Description and Natural History of North Carolina*, that went through several editions between 1728–1860. Of considerable importance is John Kirke Townsend's (1809–51) *Narrative of a Journey across the Rocky Mountains*, Phila., 1839, in an appendix to which the quadrupeds and birds found in the territory of the Oregon

are catalogued. There are also notes on the fauna of the Sandwich Islands, Chili, &c. A London edition, illustrated, in two volumes, was issued with a title somewhat different in 1840. Both works are rare.

Of early examples of these expeditions one may mention here that in 1675 Friedrich Martens described his *Voyage au Spitzberg et au Groenland*; in 1658 de Rochefort published his *Voyage aux Antilles*: the expedition of Boccone was undertaken in Sicily, 1674; Guillaume Bosman made a *Voyage aux Côtes de Guinée*, in 1704; in 1707 Hans Sloane described his *Voyage to the West Indies* (1707) including Madeira, in which he describes the flora and fauna of these islands; we note, also, the travels of Scheuchzer in Switzerland, 1708, in 2 vols., with extracts translated into Latin and French.

Reference has also been made to the valuable monographs of Gundlach on the vertebrate orders of Cuba, and published separately, 1872–93, by the *Sociedad española de historia natural*, Madrid.

During 1796–8 Ledru and Sonnini visited and described the natural history of the Virgin Islands and Porto Rico.

Auguste Sallé (d. 1896) described, in conjunction with E. Parzudaki, a collection of birds made by the former under the title *Catalogue des Oiseaux du Mexique*, &c. (Paris), 1862, a useful but rare pamphlet.

The two Bartrams, John B. (1699–1777) and William (1739–1823), published interesting contributions to North American zoology. The former traveler furnished *Observations . . . on the Animals . . . of Pensilvania* (sic) &c., London, 1751. William Bartram gave us *Travels through North and South Carolina, Florida*, &c., Phila., 1791. The original manuscript of this work and the drawings of the plants and animals to illustrate it are among the treasured items in the library of the Botanical department of the British Museum.

Several references have been made to Mark Catesby's *Natural History of Carolina, Florida*, &c., folio, 2 vols., 1731–43, with an English (1771, Edwards) and a German annotated edition (1749, Seligmann). This treatise with its early colored plates should be 'seen' by every student of American zoology.

Benjamin S. Barton's *Fragments of the Natural History of Pennsylvania*, 1799, is also regarded as a basic contribution to the study of American zoology. This rare folio was reprinted by the Willughby Society, 1883.

J. B. Labat's *Nouveau Voyage aux isles de l'Amérique*, 1722, is important owing to the natural history of the West Indies to be found in its six small volumes.

Two early and important works on vertebrate zoology are to the credit of Richard Harlan (1796–1843): *Fauna Americana; being a description of the Mammiferous Animals inhabiting North America*, &c., 4to, Phila., 1825; and *American Herpetology*, Phila., 1827. The still more important *Viviparous Quadrupeds of North America*, by Audubon and Bachman, in 3 vols. text and 3 vols. atlas, 1846, followed by the edition of 1854, has been noted elsewhere in this work.

One should not overlook the chapters on American birds in M. J. Brisson's *Ornithologia* (1760) elsewhere noted. It is a splendid example of good work, with 261 plates, but unfortunately giving only mononomes of the fauna. Here, too, mention must be especially made of John R. Forster whose rare tractate, *A Catalogue of the Animals of North America* (1771), contains the first scientific mention of many new species.

A rather early effort to describe animal life in the New World is Godman's *American Natural History*. The third edition is dated 1836, Phila.

Thomas Jefferson printed (1782 and 1787) his classic *Notes on the State of Virginia*, with a fair account of its flora and fauna.

Of the greatest interest to us are the accounts of Captain Cook's three voyages that with the observations of the two Forsters, William Ellis, Hunter, John White, Phillips, and others furnish intimate descriptions of the flora and fauna of Oceania.

It would not be out of place for the student

to read at this juncture Frank Chapman's study of Panama Zone wild life, *My Tropical Air Castle*, 1929.

Among other local travelogues is Hudson's fascinating *Naturalist in La Plata*.

Too much importance cannot be attached to Vieillot's *Histoire naturelle des Oiseaux de l'Amérique Septentrionale*, 1807, 2 vols., folio. Coues regards this and the author's other contributions to the subject of almost as much importance to American ornithology as Wilson's treatises.

Another reference should be made to the scattered but valuable contributions to American zoology of that versatile genius and original observer, Constantine Samuel Rafinesque-Schmaltz (1783–1840), best known to American readers as Rafinesque who, born in Galata, Sicily, died in Philadelphia. He wrote, among other monographs, *Ichthyologia ohiensis*, &c., 8vo, Lexington, Ky., 1820, a very rare treatise reprinted, with a life and portrait of the author, by R. E. Call, Cleveland, Ohio, in 1899. He also published the *Atlantic Journal and Friend of Knowledge* that appeared in eight numbers, 1832–3, complete sets of which are very rare.

The zoology of the expedition under W. H. Keating to the Canadian Lake of the Woods in 1823 is described in a valuable report by Thomas Say in 1825.

In 1822 W. E. Cormack explored Newfoundland and wrote his *Narrative*, an interesting account of the flora and fauna, edited by Bruton and published in 1928.

East African zoology is well represented in the *Zoologische Ergebnisse* of an expedition by F. L. Stuhlmann undertaken during 1888–90, 2 vols., Berlin.

The mammals and birds of Somaliland are described by P. L. Sclater and others in F. L. James' *The Unknown Horn of Africa*, London, 1888.

A good account of west-central African natural history (including its vertebrate zoology) is given by L. S. Schultze in his *Zoologische Ergebnisse*, 1908–13, the result of travels in 1903–5.

In 1913 C. A. Alluaud described the fishes of Lake Victoria Nyanza collected during an expedition to East Africa.

Another valuable contribution to our knowledge of East African vertebrates resulted from the Swedish Zoological Expedition to Kilimandjaro in 1905–6, 3 vols., 1910. See Sjöstedt, B. Y., in the present Catalogue.

Adolf Friederich, Duke of Mecklenburg, headed an expedition into Central Africa in 1907–8 and his report furnishes a valuable account (1910–14) of the flora and fauna of that area.

Students of the natural history of Siam and French Indo-China should read A. H. Mouhot's *Travels* in those countries during 1858–60, two illustrated volumes, London. A. Günther describes in it many new species of mammals, reptiles, and freshwater fishes.

As part of the reports (*Décades Zoologiques*) of the *Mission Scientifique &c. Indo-Chine*, a systematic account of its vertebrates is published, 1905–7.

Another report on Chinese vertebrates (some new species) is found in A. E. Pratt's *To the Snows of Tibet through China*, 1892.

A good account of the mammals and birds of Manchuria is found in P. L. von Schrenck's *Reisen im Amur-Lande in 1854–56* that appeared in St. Petersburg during 1858–1900.

For several years past the Payne-Whitney Expedition and several other less important voyages of American vessels have been made to the South Seas. The former has carried on a most excellent and extensive collection and exploring work under the direction of Mr. Rollo Beck and his assistants, supervised by the American Museum of Natural History, New York. Dr. Cushman Murphy of that institution has in charge the specimens collected during the voyage of 'La France' and other vessels in the employ of the expedition and these appear mostly in the publications of the Museum.

The various Reports of the Princeton University Expeditions to Patagonia, 1896–9, include an account of the Mammals by J. A.

Allen; Batrachiana and Reptiles by L. Stejneger; Fishes by C. H. Eigenmann.

The vertebrate zoology of northern South America is to some extent described in André's *A Naturalist in the Guianas*, 1904.

A charming account of a naturalist's adventures is Hans Gadow's *Through Southern Mexico*, well illustrated, 1908.

A publication of considerable scientific importance is the *Fasciculi Malayenses*, an account of material, including vertebrates, collected by T. N. Annandale and H. C. Robinson during an expedition to Perak and the Siamese Malay States in 1901–2.

The vertebrate zoology of North China is in part described by A. de C. Sowerby in *Through Shên-kan* (1912).

A noted traveler-naturalist was A. L. Adams, accounts of whose interesting wanderings in India, Egypt, and Canada (1867–73) are separately recorded and shelved in the Blacker Library.

A readable story of South American travels is Ball's *Notes of a Naturalist*, published in 1887.

In 1867–9 Dall and Bannister published a locally important *List of the Birds of Alaska*.

The list of expeditions to and travels in Australasia is (as noted) a long one. In 1849 Charles Sturt published an account of the natural history of Central and South Australia as a result of explorations made 1844–6. Among the more recent contributions one notices Saville-Kent's *Naturalist in Australia*, and Semon's *In the Australian Bush*.

CHAPTER VI

FORERUNNERS, CONTEMPORARIES, FOLLOWERS, AND SUCCESSORS OF LINNAEUS—A SHORT ACCOUNT OF LINNAEAN LITERATURE—FAUNAL CLASSIFICATIONS AND NOMENCLATURE.

Ray—Linnaeus—Sherborn—Peter Artedi—Duméril—Hasselquist—P. Forskål—P. Kalm—D. Solander—J. C. Fabricius—C. P. Thunberg—Erxleben—Rumphius—J. T. Klein—M. J. Brisson—Rafinesque—Möhring—W. Turton—T. E. Bowdich—J. R. Forster—Swainson—G. L. L. de Buffon—L. Daubenton—A. von Haller—Charles Bonnet—Spallanzani—Fitzinger—J. M. Bechstein—P. S. Pallas—J. W. von Goethe—J. Fleming—L. Oken—J. B. Spix—K. G. Carus—Max Weber—Louis Agassiz—Geo. Shaw—Vigors—Baird—Nelson—Richmond—Merriam—Gill—Allen—Coues—Ridgway.

THE literature of *faunal classifications*, mostly controversial, may be said to have begun with Pliny and Aristotle, and having been touched upon vaguely here and through succeeding centuries by more or less original investigators, finds its first universally recognized authority in the truly great Linnaeus. It is needless to say that this Introduction has little to do with these currents and backwaters of zoological history; it is enough to mention the chief monographs (and their writers) that make up the literature of the subject. The Compiler has already mentioned most of the proponents of this, that, or the other *system*, and it remains to be said that the wordy warfare that has gone on for two centuries, resulting chiefly in the long 'synonymies' that head the textbook accounts of various species, has grown out of a partial instead of a complete examination of the animal under review.

By some investigators it is believed that until all the internal organs, the bony skeleton, the muscular apparatus, and other animal components receive the same careful examination for determining their specific place in classification that is now given to external characters, there will never be agreement among systematists as to nomenclature.

Ray's systematics were a decided advance on the classification schemata of his predecessors, as they, in their turn, lag behind the biological system inaugurated by the illustrious Linnaeus.

Carl Linnaeus (or Linné) was born in 1707 of educated but poor parents, his father, vicar of Räshult, being a good botanist. A student at the Universities of Lund and Uppsala he had a hard struggle to secure a bare existence and was often in dire want. Before graduation, however, such was his enthusiasm for science that he was allowed to give lectures in the University. That he might further advance in scientific knowledge he took up his residence in Holland where he studied medicine, took his doctor's degree, and then moved to Leiden. There he was assisted in publishing his epoch-making *Systema naturae* which brought him immediate credit and fame. After traveling in Northern Europe for three years, during which time he published many treatises, he returned to Sweden where he made a bare livelihood by the practice of medicine. In 1741 he was made professor of botany at Uppsala and soon became not only the foremost teacher in the University but was recognized as a world-wide scientific leader, acknowledged and acclaimed everywhere. He was the recipient of many honors and was finally ennobled, taking the name of von Linné. His systematic treatises are, as every one knows, the foundation on which modern biologic classification is built. Some of the very numerous Linnaean 'epithe-

tics', among them Pulteney's *Memoirs of the Great Naturalist*, 1805, are to be found in the Blacker and E.S.W. libraries; and it may be added that a complete annotated bibliography of all Linnaean literature is now in process of preparation by Mr. Soulsby, the talented Librarian of Zoology in the (Natural History Dept.) British Museum.

For the advanced student of Linnaeus a most useful handbook is Charles Davies Sherborn's *Index to the generic and trivial names of Animals in the 10th and 12th editions of the Systema Naturae*, 1899.

This is not the place to discuss the competence nor the weaknesses of the Linnaean binomial classification of plants and animals; the Compiler simply repeats one objection to them, viz. that their merits are by no means uniform. The Linnaean zoological classes were not treated as successfully as the botanic system, probably because the writer knew more about flora than he did about fauna.

The pupils of Linnaeus, some of whom were foreigners attracted by the fame and enthusiasm of the great teacher, traveled abroad and made collections and observations independent of their instructor.

Among them mention may be made of those earlier observers who added anything worth while to the literature of zoology.

Peter Artedi, born in North Sweden, more of a fellow worker than pupil, joined with the young Linnaeus at Uppsala to study natural science, the one preferring botany, the other choosing zoology, especially ichthyology. While Artedi was preparing his *Ichthyologia* with the aid of his friend Linnaeus he came to a tragic end; he fell into a canal and was drowned towards the end of 1735. In 1738 his famous work on fishes was edited and published in Leiden by Linnaeus.

Of the French school of systematists and comparative anatomists one must not overlook André Duméril who, in addition to numerous other contributions to natural history, wrote a *Zoologie analytique, ou méthode naturelle de classification des Animaux*, 1806, and a *Mémoires d'Anatomie comparée*, 1807.

F. Hasselquist, an actual pupil of Linnaeus, traveled in the East and died (1752) in Smyrna. He gives the natural history of the countries visited in his *Voyages and Travels in the Levant*, 1766. This work, popular in its day, has been several times translated. The student list also includes such well-known writers as Pehr Forskål (1732–63), whose *Descriptiones Animalium* is among the zoological fundamentals; Pehr Kalm (1716–79); Daniel Solander (who held a position at the British Museum, and died in London in 1782); J. C. Fabricius (1745–1808); and Carl Peter Thunberg. Of these the last-named roamed farthest afield, collected the most material, and published the largest number of monographs. His *Fauna Americae meridionalis*, Uppsala, 1823, in three parts, of which he acted as editor, is a very important contribution to American zoology.

J. C. P. Erxleben's *Mammalia* as part of his *Systema Regni Animalis per classes, ordines*, &c., 1777, must not be overlooked as an important document in the contest over nomenclature and systematics generally.

Because of its value as an early systematic study of faunal life in the Moluccas the Compiler draws attention to a rare folio, G. E. Rumphius' *D'Amboinische rariteitkamer*, &c., published in Amsterdam in 1705.

One writer and traveler of the eighteenth century, Jacob Theodore Klein (1685–1759), demands special mention. His careful treatises (q.v.) on floral and faunal subjects form an important contribution to the history of systematic biology.

One of the finest publications of this period is the *Ornithologie* of Mathurin J. Brisson (1723–1806) who, like the authors just mentioned, modified in many respects the classification of the Linnaean *Systema*.

A student of Linnaeus and his classification was George Edwards, who, in his *Catalogue of Birds, Beasts, Fishes*, &c., 1776, and elsewhere, discusses the systematic nomenclature of the listed fauna.

One of the numerous supporters of the Linnaean method was the brilliant though erratic Rafinesque (1783–1840)—that Sicilian-American to whom a more extended reference is elsewhere made. It will be remembered that there were at this time other systems, advocated by Barrère in 1745 (*Ornithologiae Specimen Novum*; Perpignan); Möhring in 1752 (*Avium Genera*; Zürich); the better known Klein, who published his *Historiae avium Prodromus* at Lubeck in 1750; also the noted English naturalist, William Turton (1762–1835), who not only translated the *Systema Naturae* but compiled a treatise on *British Fauna* (1807) arranged according to the Linnaean system.

An American systematist of some note, T. E. Bowdich, made a rather early *Analysis of the Natural Classification of Mammalia*, Paris, 1821, dealing with both the Illiger and the Cuvier nomenclatures.

One of the early (and rare) Zoologia Americana is J. R. Forster's *Descriptiones Animalium*, 1771, reprinted (with a preface by P. L. Sclater) by the Willughby Society in 1882.

William Swainson (1789–1855) was an active British naturalist. During the first half of the nineteenth century he wrote many monographs on zoological subjects, especially on avian life. It may here be noted that his most enduring contribution to vertebrate zoology was his *Treatise on the geography and classification of Animals* (1835), originally contributed to Lardner's *Cabinet Cyclopaedia*.

It was about this time that Johann J. Kaup (1803–73) wrote his works on (anatomical) classification of animals, most of whose titles are listed in this Catalogue.

In 1850, A. White wrote a semi-popular history of the mammalia, in which stress was laid on classification and habits.

Of eighteenth-century zoologists in France (whose classification of animals is important) Count Georges Louis Leclerc de Buffon, wealthy and well-born, was easily the most brilliant. He received a thorough education at home and, after making the *grand tour*, spent a year in London studying mathematics, physics, and botany. In 1739 he was appointed keeper of the 'King's Garden', now the *Jardin des Plantes*. Under his influence this *Jardin du Roi* was greatly extended and became the centre of biological research in France. Buffon was made a count, a member of the French Academy, and became a universal social and scientific success. In the beginning of 1749 the first part of his famous *Histoire naturelle* was published and he continued to work on it for the remainder of his life. In this monumental task he was greatly assisted by the anatomist Louis Daubenton (1716–1800). The first edition was later followed by several supplementary volumes (*Suites*) and by many translations and editions of the treatise itself. Several of these are represented in this Catalogue and mirror the reputation of Buffon as a natural scientist, brilliant writer, and, in many departments of zoology, an original thinker. It will be noticed, however, in glancing at his contributions to literary biology that he seems unable completely to discuss the subject of mammals. This caption in his *Histoire* was dealt with monographically by Daubenton and others, who added notes on their comparative anatomy.

Although that versatile prodigy the Swiss-born Albrecht von Haller is best known as a physician, poet, and physiologist, he made several contributions to pure zoology; among them a *Historia naturalis ranarum*, 1758, and a mass of observations on animals in his *Bibliotheca anatomica*, an annotated bibliography of all the literature in that scientific sphere to the date of its compilation. Osler said of him (*Bibliotheca Osleriana*, p. 117) that he 'is the greatest bibliographer in our ranks. Next to the Index-Catalogue of the Surgeon-General's Library, his works have been most helpful in the preparation of this catalogue. To learning and judgment he added that indispensable quality in a bibliographer, accuracy'.

Charles Bonnet (1720–93) was, like Haller, born in Switzerland. Although he devoted

himself almost entirely to insect biology, and is best known as the discoverer of parthenogenesis (in the aphidae), he contributed somewhat to vertebrate zoologic literature; e.g. in his *Contemplation de la Nature* (1769, 2nd ed.), 2 vols., and in his *Œuvres d'histoire naturelle*, &c. (1779–81), 8 vols., 4to, published in Neuchâtel.

Closely related to Bonnet but differing from him in some important respects was the Abbot, Lazaro Spallanzani (1729–99), born at Reggio. The Swiss naturalist translated the Italian scientist's *Opere* into French while Spallanzani himself published one of his early works with the title: *Fisica animale . . . colla giunta di due scritti sullo stesso argomento del celebre Sig. Bonnet* (1782). The Osler Library has a full complement of the works of these two friends.

Several references have been made to the systematic works of the famous zoologist, M. J. Brisson (1723–1806), a rival of Linnaeus. The Compiler again draws the student's attention, at this juncture, to the two editions, 1756 and 1762, of his *Regnum animale*, published in parallel Latin and French columns, as among the fundamental books of reference.

Of later contributions to faunal classification there must be borne in mind L. J. Fitzinger's essays on the subject, among them his *Neue Classification der Reptilien*, Wien, 1826; *Naturgeschichte der drei Reiche*, 1862–4, in 8 vols.; and an unfinished *Conspectus geographicus* of which the *Systema Reptilium* appeared in 1843 as the first fascicle.

One may once more refer here to that faunal systematist, Jacob T. Klein (1685–1759), whose numerous works on all the major faunal groups are represented on the shelves of the McGill libraries. One of the best of these is his criticism (1743) of the arrangement by Linnaeus of his quadrupeds and amphibia in the *Systema Naturae*.

In 1795–7 J. M. Bechstein published the first edition of his treatise on caged animals—including birds, mammals, fishes, and amphibia. Not only have there been several editions of this well-known work but it served as a source of supply for numerous popular books on pet animals during several subsequent generations.

In 1731–8 E. Albin brought out *A Natural History of Birds*, in three folio volumes, London, illustrated, and in 1737 published a book on *English Song Birds*, which is now very rare, there being no copy in the British Museum library.

Among well-known writers on comparative biology was Peter Simon Pallas (1741–1811). Although born in Berlin and educated as a physician in Germany, most of his scientific work was done in Holland and Russia, in the latter country under the patronage of Catherine II. His contributions to biological literature deal in most part with zoology—especially with mammalogy. His *Spicilegia zoologica*, a series of monographs, describes a number of new species. An account of his Russian travels, as well as several other titles by this important zoologist, are recorded in this Catalogue.

The Compiler has not the space required to do justice to a sketch of the life, activities, and enduring influence exerted on scientific thought by that intellectual giant Johann Wolfgang Goethe (1749–1832). It would absorb several pages to evaluate properly his many contributions to biology. Born at Frankfurt-am-Main in 1749 of wealthy bourgeois parents, he first practised law, and then became actively engaged in the political and literary life of the principality of Weimar. After a two years' residence in Italy he retired to devote the remainder of his long life to poetry and science. Of the numerous titles (and the many editions and translations of them) perhaps the best selection of his biological writings is the two-volume edition of *Schriften zur Naturwissenschaft* (1905–7) with notes by Max Morris. These are excerpts from the 14 vols. of the celebrated Weimar publication, mostly on natural science.

In 1822 the Rev. Dr. John Fleming wrote a *Philosophy of Zoology*, giving his views on the classification, structure, &c., of animals, that had considerable merit. He it was who sub-

sequently (1828) published a fair *History of British Animals* in one large 8vo volume.

A South German philosopher who devoted himself to natural history, whose fame spread throughout continental Europe, was Lorenz Oken or Ockenfuss (1779–1851). He, after graduation as a doctor of medicine, taught in several home universities. Finally (in 1832) he settled in Zürich for the remainder of his life where he carried on his chosen work. Oken is best known by that natural history periodical, *Isis*, which he published for many years. The articles in that magazine represent all phases of contemporary opinion; in its columns problems were presented and prizes offered for their solution. Since its discontinuation the title 'Isis' has been given to several other periodicals, showing the sincere flattery of this form of imitation. Complete sets of this storehouse of information are becoming very rare; it was only after years of search that the Compiler was able to complete the files in the Blacker Library.

In the same collection are Oken's *Allgemeine Naturgeschichte für all Stände*, 1833–41, with an atlas of 158 col. pl., and his *Lehrbuch der Naturphilosophie*, 1843. The former is a compilation of high order, the latter, by some regarded as the author's best work, reflects his peculiar notions about the Universe, its government, the source of animal life, and so forth.

Every student of the history of systematic zoology should consult J. B. Spix's *Geschichte aller Systeme in der Zoologie*, 1811, a scholarly account of the science since the days of Aristotle.

Mention may here be made of Karl Gustav Carus (1789–1869), born in Saxony, court physician and (earlier in life) professor of comparative anatomy at Leipzig. In 1861 he summarized his rather eccentric notions about the relations of species to one another in his *Natur und Idee*. The whole animal system is arranged in circles, with protozoa at the periphery and *homo sapiens* in the centre—the Circular System.

A noteworthy work is Max Weber's *Die Säugetiere*, 1904, a monograph on the anatomy and classification of mammals recent and fossil.

An illuminating contribution to the science of classification is found in Louis Agassiz's (1854) *Sketch of the Natural Provinces of the Animal World*.

Of the army of systematists who compiled or wrote original schemes of nomenclature must be mentioned René P. Lesson (1794–1849) whose numerous contributions to the literature of vertebrate zoology are well known. The *Manuels*, both of *Mammalogie* (1827) and of *Ornithologie* (1828), are among the earliest of his writings, while his various *Tableaux* furnish his ideas of faunal classification. Most of Lesson's titles are listed in the Catalogue.

A systematic treatise of considerable importance is the voluminous system (14 vols. with many illust.) by George Shaw, London, 1800–26.

Systematics based on special anatomy is the work of J. B. Spix, *Cephalogenesis, sive capitis ossei structura*, &c., 1815, by which classes, families, &c., are to be determined by the conformation of head structure.

In some systematic classifications all faunal forms are supposed to be grouped or to revolve about *homo sapiens* as the central figure. Beginning with the *Historia Naturae* (1635) of Nierenberg, Fischer de Waldheim in his *Tableaux Synoptiques de Zoognosie* (1806) was followed by William S. Macleay (1792–1865) who further elaborated his concepts of the so-called Quinary classification.

It was Vigors, however, that was most influential in pressing Quinary graphs on the scientific world, a task in which he was greatly assisted by Swainson. Both these writers contributed, between 1823 and 1835, many papers on the subject to the *Transactions of the Linnaean Society* and to the *Zoological Journal*.

As stated by Swainson in his *Geography and Classification of Animals* (1835) this so-called 'circular-grouping' held sway among systematists for a number of years.

While on this subject attention must be drawn to the fundamental and enduring work on *neotropical classification and nomenclature* carried on for nearly a century by American systematists—most of it contributed to U.S. Government Publications. Although titles in serials have been, as stated, necessarily ignored in this Introduction, the Blacker and other libraries of McGill University have on their shelves a goodly array of these indispensable publications that record the labors of Baird, Merriam, Nelson, Stone, Richmond, Gill, Allen, Coues, Henry, Ridgway, and a hundred other faithful workers, living and dead, who have left their mark on the history of zoology.

CHAPTER VII

SOME FUNDAMENTAL TITLES IN THE LITERATURE OF MODERN VERTEBRATE ZOOLOGY — HAND-COLORED ATLASES AND THEIR MAKERS — ANIMAL PAINTERS AND ILLUSTRATORS.

Temminck—Schlegel—Catesby—Albin—Geo. Edwards—A. Sparrman—Bree—Fritsch—William Hayes—W. Swainson—Jacquin—Susemihl—Sven Nilsson—F. Levaillant—Audebert—Vieillot—Prince Maxmilian Wied-Neuwied—A. Desmarest—Audubon—Manetti—E. Rüppell—J. A. and J. F. Naumann—John Gould—Fraser—Sir W. Jardine—C. W. Hahn—Des Murs—G. D. Rowley—René P. Lesson—Kittlitz—Reichenbach—J. O. E. Perrier—Cassin—D. G. Elliot—J. E. Gray—Lear—Dresser—Olphe-Galliard—Joseph Wolf—Keulemans—George Moore—Marshall Bros.—Lichtenstein—William Lewin—Wolf and Meyer—Montagu—Graves—Selby—John Hunt—Jenyns—H. L. Meyer—Eyton—Macgillivray—Yarrell—F. O. Morris—H. Seebohm—Jardine—Booth—J. Rennie—Lord Lilford—Shaw and Stevens—Duméril—Gravenhorst—Illiger—Hardwicke—Ranzani—Latreille—Wagler—d'Orbigny—Millais—St. George Mivart—Gaetke—Kaup—Prince C. L. Bonaparte—Giebel—Trouessart—C. O. Waterhouse—C. D. Sherborn—Thos. Brown—George Robert Gray—Richardson and Swainson.

THE modern literature of European fauna deals largely with continental forms. So far as *birds* are concerned—and they occupy much of the limited space devoted to animal life in this Introduction—mention has already been made of Temminck's *Manuel d'ornithologie*. It first appeared as a single book in 1815, but was expanded into several volumes, and for fifty years was the best known work on European ornithology. One of the author's colleagues, Hermann Schlegel, brought out (1844) in German, Latin, and French a *Kritische Uebersicht der Europäischen Vögel* which treated to the date of publication and in masterly fashion the whole subject of European avifauna.

The first six or seven decades of the nineteenth century formed the period, *par excellence*, of splendor in *hand-colored illustration*. Neither before nor since have animals—especially birds—been so splendidly and effectually depicted. There were, it is true, a few forerunners of these really magnificent atlases—most of them folios and quartos—among the earliest being two large folios (1731–43) containing fine illustrations of Mark Catesby's well-known *Natural History of Carolina*, destined for several foreign translations and reproductions. This work was followed in 1738–40 by Eleazer Albin's colored figures illustrating his *Natural History of Birds*, and, best of all, by George Edwards' *Gleanings of Natural History* in four quarto volumes.

As early as 1786–9, A. Sparrman's *Museum Carlsonianum* (q.v.) with 100 colored plates was published. Later (1832–7) appeared the magnificent Gould's *Birds of Europe*, in five folio volumes. In 1849 was published Degland's *Ornithologie Européenne*, in two volumes, whose errors were supposed to be corrected by Gerbe in a second edition (1867). Bree's excellent *Birds of Europe not observed in the British Isles*, 4 vols., 1858–63, in 1875 reached an improved edition of five volumes, while Anton Fritsch in 1870–1 published his *Naturgeschichte der Vögel Europa's* with a well-made folio Atlas.

Of the earlier examples of zoological atlases with fine, colored plates, one must remember

the works of William Hayes, especially his *Natural History of British Birds* (1775), 40 colored plates, and his famous *Osterley Park Portraits* (1794) with 101 hand-colored plates. Jacquin's *Beyträge zur Geschichte der Vögel*, 1784, although a small folio, has 19 excellent colored plates.

A fine early atlas of hand-colored plates, 3 volumes, with text, is W. Swainson's *Zoological Illustrations*, 1820–3.

Another noteworthy atlas is J. C. Susemihl's *Abbildungen der Vögel Europas*, 1839–51, a quarto with 106 fine, colored plates.

Influenced to an extent by the previous activities of Linnaeus, Sven Nilsson (1787–1883) began his literary labors by publishing, in 1817–21, his *Ornithologia Svecica*, followed soon after by several treatises and fine atlases on Scandinavian fauna in general, most of which had subsequent editions. Consult the present annotated Catalogue.

An *Afbeeldingen* of Netherlands zoology, 316 well-executed hand-colored plates of which 133 depicted birds, was issued in 1838 by Nicolaas Anslijn.

Reproductions of colored drawings almost attained perfection in the atlases of François Levaillant (1753–1824), several times mentioned in these pages. His earliest large work was a magnificent folio—with many colored plates—the *Histoire naturelle . . . d'Oiseaux de l'Amérique*, &c. (1801); the next three were the famous volumes on Parrots, not completed until after the author's death, followed by two monographs on other avian groups. It seems a pity that he was unable during his lifetime to complete, even with the aid of his son and of Temminck, his admirable *Oiseaux d'Afrique*, the sixth and last volume of which was published in 1808. The McGill libraries have almost complete sets of F. Levaillant's works, including the rare English rendering (London, 1790) of the *Voyage dans l'intérieur d'Afrique*, Paris, 1790.

A contemporary and similar series of works to those of Levaillant were begun by Audebert and Vieillot. In 1802 appeared their *Oiseaux dorés*, two folio volumes, remarkable plates whose fine hand-coloration is heightened (though from the systematic point of view not improved) by gilding.

Vieillot issued in 1805 a work on the 'beaux chanteurs' of the torrid zone, and in 1807 another treatise on the birds of North America.

A fine colored atlas (90 plates) of the fauna of Brazil accompanied Prince Maxmilian Wied-Neuwied's *Abbildungen zur Naturgeschichte Brasiliens*, 1822–31.

Mention must be made also of A. Desmarest's (1784–1838) *Histoire Naturelle des Tangaras* (1805), as well as of the publication in 1808 of a rare and beautifully illustrated *Les Pigeons* by Coenraad J. Temminck (1770–1858), assisted and illustrated by Mme. Knip. In 1813–15 he published, alone, a 3-volume work on the same subject. These fine atlases were followed in 1815 (2nd ed. 1820–4) by his *Manuel d'Ornithologie* which was translated into Dutch in 1824.

Of the many folios and quartos illustrated by splendid and costly hand-colored plates the blue ribbon must be awarded to an Americana, Audubon's famous elephant folio of 435 life-size studies of the *Birds of America* (1827–38). This magnificent atlas was followed by several folio and smaller-sized editions, both of plates alone and of text under the title *Ornithological Bibliography*. All these editions, reprints and variants, are listed in this Catalogue and shelved in the libraries of McGill University. A sketch of Audubon's career and a further account of his literary activities will be found in the chapter on *Unica*.

In 1820 Temminck, assisted by Baron Laugier, projected a supplement to D'Aubenton's *Planches Enluminées* (1771–86) with the title *Nouveau Recueil*, &c. (1838). One hundred and two parts in five volumes illustrated by 500 plates were issued at irregular periods, the last in 1839. One of Temminck's disciples was J. C. Werner, whose splendid *Atlas des Oiseaux d'Europe* of 530 plates (1842–8) is elsewhere described.

An admirable Italian and Latin ornithological

compilation by Xaverio Manetti (1723–84) and others in five volumes, fairly well illustrated in color, was published at Florence, 1767–76.

Vieillot completed in 1825 the text of the *Galerie des Oiseaux*, an ambitious effort to figure and describe every avian species. Oudart prepared the plates, and the work was continued until two volumes with 301 colored illustrations had been published.

Although many brilliant colored atlases of birds (and fishes) will be mentioned and listed in this work it must not be forgotten that similar collections of pictures covering all the vertebrate orders were occasionally published, an example of which is the *Atlas zu der Reise im nörd. Afrika*, by E. Rüppell, in 5 parts with over 100 fine, colored plates.

Contributions to the long list of early hand-colored treatises on the avifauna are the remarkable volumes of the two Naumanns, beginning with Johann Andreas (1744–1826), whose *Naturgeschichte der Land- und Wasser-Vögel des nördlichen Deutschlands*, &c. (1789–1803) with drawings by Johann Friedrich (1780–1857) was followed by several similar titles, generally accompanied by atlases with hundreds of colored plates. These editions (the last one of 12 volumes, completed in 1905) really form the principal accounts we have of middle-European birds, and the Compiler advises all students to make themselves familiar with their pages.

In 1832 John Gould began the publication of his wonderful series of zoological monographs that for profusion of hand-colored illustrations have never been equalled. Beginning with *A Century of Birds from the Himalaya Mountains* he finally published through a series of years about forty-five folio volumes (exhibiting 3,000 colored plates) that comprise a marvellous array of treatises, whose full titles will be found in the present Catalogue. They constitute the most attractive literary treasures of the Blacker and E.S.W. libraries, and include his famous *Birds of Asia* as well as the incomparable atlas-treatises on Humming Birds, Toucans, Trogons, &c.

Fraser's ambitious *Zoologia typica*, begun in 1841, was intended to include a general series of colored plates, and although the seventy plates that did appear were extremely well executed the enterprise did not meet the support it deserved, and it was discontinued in 1849.

Better in execution are the colored pictures prepared by Selby and Jardine for *Illustrations of Ornithology* (1827–43) in four volumes with over 200 plates.

In 1834–41 appeared C. W. Hahn's *Ornithologischer Atlas* of birds of the world, unfinished after 137 colored plates had been issued.

James Wilson's *Illustrations of Zoology* (1828) produced 36 colored plates.

Des Murs' supplement to D'Aubenton's *Planches enluminées*, entitled *Iconographie ornithologique*, with seventy-two colored plates, was completed in four years (1845–9). Similar to it are the *Esquisses ornithologiques* of Du Bus, with 37 plates, followed by the more valuable *Exotic ornithology* of Sclater and Salvin with 100 plates picturing 104 species from Central and South America. About the same time appeared the periodical *Ornithological Miscellany* of Rowley (1875–8), having as contributors the leading British ornithologists of the day. The hand-colored plates are unusually good, from drawings by that fine artist Keulemans.

Most of the atlases described above (costly and rare folios and quartos) were followed about this time by quite a few volumes on zoology of smaller size and, generally speaking, of minor importance. Among the former are Swainson's excellent three (octavo) volumes of *Zoological Illustrations* with 182 colored plates (1820–1), succeeded by a second series, equally good, completed in 1833. The latter, of three more volumes, contained 136 plates.

About this time (1828) Lesson brought out in two duodecimo volumes his *Manuel d'Ornithologie* and in (1831) an octavo *Traité d'Ornithologie*, with an atlas of the same size containing 119 plates. A well executed *Centurie*

Zoologique, with 80 colored plates, completed in 1831 and followed by *Illustrations de Zoologie*, 60 plates, was also due to the labors of this well-known and diligent naturalist.

In 1832–3 Kittlitz published his *Kupfertafeln zur Naturgeschichte der Vögel*, with 36 plates.

Attention has already been drawn to the elaborate works of Reichenbach who in 1845 began publication of his remarkable series of illustrated quarto treatises which were issued during the following ten years and are generally referred to under the title *Vollständigste Naturgeschichte der Vögel*. On about 1,000 plates—900 colored—are crowded illustrations representing avian species, mostly reduced in size from other authors, Gould in particular. A. B. Meyer, in 1879, published a useful, indeed necessary, *Index* to these numerous pictures.

During 1902–6, J. O. E. Perrier published *La Vie des Animaux illustrée* in four volumes with numerous colored plates; mammals by A. Ménégaux and birds by J. Salmon.

In 1853–5 Cassin brought out what is regarded by some as a supplement to Audubon's octavo edition, *Illustrations of the Birds of California*, &c., and in 1866–9 D. G. Elliot published an important and well-illustrated sequel to Audubon's treatises entitled *New and hitherto Unfigured Birds of North America*.

After the lapse of nearly sixty years an accomplished ornithologist-painter, Rex Brasher (following the example of Audubon), published an atlas (1930) of 12 volumes depicting *all* the birds of North America—a stupendous undertaking rivaling the work of Audubon in execution and much exceeding him in the number and variety of his pictures.

In 1830 John Edward Gray began publishing his atlas, *Illustrations of Indian Zoology*, without descriptive text.

During 1832 Lear issued his faithfully figured work on Parrots. Many of the original drawings used to illustrate this monograph are now in the Blacker Library.

A notable work on European bird life is that of Dresser (and Sharpe) who began their well-known *Birds of Europe* in 1871, to be completed alone by the former in 1879—a splendid 4to set of eight volumes, followed by a helpful supplement. The beautiful colored plates are reproduced from the drawings of Keulemans and Neale. Newton (*Dictionary of Birds*, p. 42) remarks of this fine piece of work: 'European ornithologists have been all but unanimously grateful to Mr. Dresser for the way in which he brought this enormous labour to a successful end.'

Léon Olphe-Galliard issued in 41 fascicles a *Contributions à la Faune ornithologique de l'Europe Occidentale*, 1884–91, usually bound in 4 volumes, one of the most important systematic treatises ever written on the subject. Among several similar publications, J. Backhouse brought out (1890) a useful *Handbook of European Birds*. The E.S.W. Library has an interleaved and annotated copy prepared by the author for a second edition that never appeared.

The greatest of all animal painters, Joseph Wolf, began in 1855 the publication of his *Zoological Sketches* from subjects in the London Zoo. This wonderful exhibit of faunal portraiture has never been equalled in that desirable but rare combination—fidelity to nature and artistic conception. The Blacker Library has a small number of original drawings by Wolf that are regarded as among the finest of its 'association' possessions.

Several large zoological atlases were the product of the pen and brush of George Shaw (q.v.) who, among other works, depicted the collections in the Museum Leverianum (1792–6), and with F. P. Nodder issued 24 volumes of colored natural history plates entitled *The Naturalist's Miscellany*, London, 1790–1813.

These truly great examples of colored reproductions of animal subjects (most of them finished by hand) were followed at rather regular intervals for many years by smaller enterprises, some of them of importance. A fair example is the Marshall Bros. *Capi-*

tonidae or Scansorial Barbets, a monograph with 73 beautifully colored plates, London, 1870–1.

As the Compiler has elsewhere mentioned, both the *Centurie Zoologique* (1830) and the *Illustrations de Zoologie* (1832) of Lesson, the former with 80 and the latter with 60 colored plates, deserve a place with the best of the colored bird atlases.

A valuable Museum Curator who utilized his material for publishing drawings, catalogues, and letterpress of scientific value, was M. H. C. Lichtenstein of Berlin (1780–1857). See the appended Catalogue.

One of the treasures of the Blacker Library is William Lewin's *Birds of Great Britain*, with the seven extra-illustrated volumes of hand-colored plates, London, 1789–94, elsewhere fully described.

Another fine atlas is that of Wolf and Meyer's *Naturgeschichte der Vögel Deutschlands*, 1805–21, with 176 colored plates.

Of Montagu's remarkable *Ornithological Dictionary* (various editions 1802–83) it may be repeated that it was the earliest and best of its kind. Graves published in three volumes and two editions (1811–21) a *British Ornithology* that does not find favor with Newton who prefers the contemporary treatise of the same title by John Hunt, published at Norwich (3 vols., 1815–22) but never completed.

About this time (1825–33) appeared a fine series of 222 colored plates engraved by the author—Selby's *Illustrations of British Ornithology*, in two folios, accompanied by two similar volumes of text. This well-known work passed to a second edition, the first volume of letterpress being changed to bring the classification in conformity with the so-called Quinary theory that then (and for a long time afterwards) was quite fashionable.

A fairly well-known octavo work—now quite rare—appeared in 1828, Fleming's *History of British Animals*, followed in 1835 by Jenyns' *Manual of British Vertebrate Animals*, a very useful handbook. Librarians and others will please note that Leonard Jenyns later underwent a change of name (but not of heart) to L. Blomefield. It was in 1857 that H. L. Meÿer completed his celebrated *Coloured Illustrations of British Birds and their Eggs*, in quarto.

Eyton, in 1836, published a supplement to Bewick's *Birds* (1821) under the heading *History of the Rarer British Birds*.

The year 1837 was marked in the annals of British vertebrate zoology. This was the inception of treatises on the bird life of Great Britain by Macgillivray and Yarrell. The eulogy pronounced upon the works of both these naturalists by Alfred Newton is, in the judgment of the Compiler, well deserved: 'They still stand as the best that could be said on the subject in the middle decades of the nineteenth century.' An entry of most of the editions of their principal studies—both entitled *A History of British Birds*—will be found in this Catalogue. Saunders, it may be added, condensed and practically re-wrote (in one volume, 1889) Yarrell's three volumes to form a most valuable and useful *Manual of British Birds*.

Profiting (in quite a legitimate fashion) by the observations and writings of Macgillivray and Yarrell, the Rev. F. O. Morris published *A Natural History of the Nests and Eggs of British Birds*, 3 vols., 8vo, 1st ed., 1853; a *History of British Birds*, 8 vols., numerous editions; H. Seebohm also a *History of British Birds*, &c., 4 vols., 1883, and several other and earlier editions. These volumes were for many years very popular; they are well written and excellently illustrated works on the subjects of their title-pages.

Although Professor Newton does not hesitate, in his usual frank manner, to state what he regards as the inferior status of the Morris and Seebohm volumes yet there are several authorities that do not agree with him. Certainly the works of both authors were employed as textbooks by several generations of teachers and advanced students, to the entire satisfaction of all concerned, and the colored plates that adorn the text have been approved

and copied by many experts and informed illustrators to the present hour.

A unique literary and book-making performance is Jardine's *Naturalist's Library* (1830–45), forty octavo volumes. This semi-popular work, successfully picturing by means of hundreds of hand-colored portraits the vertebrates of the world, is a wonderful little library of natural history, an encyclopedia of faunal monographs of which three editions, one a reprint, have appeared. The memoirs of celebrated naturalists, that form part of the *Library*, are well worth reading.

Another excellent treatise, with the misleading title, *Rough Notes on Birds in the British Islands*, is by Booth of Brighton, 1881–7. This work forms two folios, with fine drawings by Keulemans.

Here one may draw attention to a rather useful book, J. Rennie's *Architecture of Birds*, one of the early monographs on avian anatomy.

Every doctrine promulgated by the immortal White of Selborne is revered by this Compiler, and he firmly believes, with the great naturalist, that 'every kingdom, every province should have its own monographer', but when it comes to the recognition of half a dozen monographers for *every* province he would like to draw somewhere a well-marked line. In no country (although Germany and the United States make a good second) in the regional world have 'local faunas' been so widely exploited as in the British Isles. There seems to be a monograph on the vertebrates of every region, county, city, and town of the United Kingdom, several times repeated. Some of these will be noticed here; for the remainder the Catalogue must perform that duty.

The array of expensive colored atlases just described by no means exhausts the output of zoological literature of the same character during the period indicated. These are systematic manuals and other treatises published in considerable numbers, the colored plates being mostly subsidiary to and illustrative of the complete letterpress. Of more recent examples one may cite the magnificent (456) *Coloured Figures of the Birds of the British Islands*, by Lord Lilford (T. L. Powys), in seven volumes; the drawings by Keulemans and Thorburn.

Returning for the moment to vertebrate zoological literature in general, among the more important handbooks and monographs are Shaw and Stevens' *Zoology*, in 14 volumes (1809–26); Duméril's *Zoologie analytique* (1806); Gravenhorst's *Vergleichende Uebersicht des linneischen Systeme* (1807); Illiger's *Prodromus Systematis Mammalium et Avium* (1811), a useful handbook; Vieillot's *Analyse d'une nouvelle Ornithologie* (1816), now very rare, but reprinted by the Willughby Society; Temminck's *Manuel d'Ornithologie* (1820) in which he promulgated an *Analyse* of his own that criticized and really supplanted the classifications of Vieillot and Illiger in the minds of ornithologists generally.

Another fine example of faunal depiction is *Illustrations of Indian Zoology*, by T. Hardwicke and J. E. Gray, 2 vols., 1830–4. Still another is De Kay's *Zoology of New York* (1842–4) in which the birds are shown in 141 fine, colored plates.

Ranzani in 1821 published his compilation, *Elementi di Zoologia*, in 8 volumes; in 1825 appeared Latreille's *Familles Naturelles du Règne Animal*, and in 1827 Wagler completed his *Systema Avium*, followed in 1830 by a *Natürliches System der Amphibien*, both works being more fanciful than useful to students.

For the serious student of American ornithology d'Orbigny's *Synopsis Avium*, based on his voyage to America, must not be forgotten.

The Compiler, whose present function it is to annotate zoological works in the McGill libraries, has elsewhere commented on a portion of the literature of those occupations and amusements known as the Chase, Hunting, and (certain forms of) Sport. At this time it may be well to discuss the varieties that involve the *unnecessary destruction of animal life*, because it is the Compiler's considered opinion that when joined, as is frequently the case, to the deliberate killing of birds or other

animals for the mere gratification of one of man's meanest instincts, the act assumes the guise of a cowardly murder—and nothing else. And when this wanton destruction is accompanied by the infliction of long-drawn-out pain and misery the crime ought to be denounced in no uncertain terms by every believer in the rights of animals. It should be equally condemned whether the deed be perpetrated by 'our very best people' or by the so-called 'lower classes'; whether the defenceless and often harmless creatures are needlessly done to death in the lovely stretches of the British Isles, in the forests or mountains of America, on the blood-stained terraces of Monte Carlo, in the bull-rings of Spain or France, in the jungles of India, or in the uplands of the African continent.

Let the apologist disguise it as he will, deplorable inhumanity lurks in live-pigeon shooting matches, in pheasant and partridge bags, in the pleasures of wild-fowling, in the otter hunt, in the horrible stag hunt, in the fox hunt (that 'pursuit of the "uneatable" by the "unspeakable" '), in deer hunting, and in every one of those allied cruelties one meets the wide world over.

Lest some unsophisticated reader may accuse the Compiler of being too 'sobby and sentimental' on this subject let him read an authentic account of, say, an up-to-date otter hunt, by a responsible naturalist. He will find such a recital in Henry Williamson's *Tarka*, with an introduction by Sir John Fortescue, published in 1930, a copy of which is in the Blacker Library.

The author describes the brave fight of an animal with his most dreaded enemies—dogs, 'gentlemen' garbed in full hunting regalia, and a mixed crowd of men, women, and children who chased him one bright summer's day over the English moorlands. All day long this human mob, urging on a score of hounds to bite and worry the unfortunate beast, assisted with long, iron-shod poles in hunting him out of holes and watery shelters in which he from time to time took temporary shelter After nearly nine hours of this sort of amusement they finally killed him. And this is how he died: 'He crawled half up the bank, but turned back at the thudding of many feet and swam down to the stickle. The sideway ply of a pole in a turmoil of water struck him on the head. He pushed past the iron point but it was brought down on his shoulder. Hounds were fifteen yards away, urged on by the horn and the cheers of the whippers-in. Thrice Tarka's teeth clicked on the iron pressing his shoulder as he strove against the weight of the sportsman trying to lift him back. A second pole was brought down from the other flank, crossing the first—and these wooden pincers held him. Amid the harsh cries of men and women and the heavy tongues of hounds Tarka was overborne by the pack.'

But the wretched otter was not quite dead yet; there was more fun in store for the hunters. 'Tarka escaped at last from the worry and swam down stream slowly, bleeding from many wounds . . . and as hounds and men were about to leave he was observed to kick feebly and roll over. *Tally Ho!*'

Alas! for this blot on the scutcheon of an otherwise brave and gentle people.

The student's attention is directed to one of the best known, modern, illustrators of works on game animals—especially birds—viz. John G. Millais. Among many publications of merit is his *Game Birds and Shooting-Sketches*, 1892, admirably illustrated by 34 colored plates. More to the Compiler's liking are his *British Surface-Feeding Ducks*, 65 plates, 1902, and his *Mammals of Great Britain and Ireland*, 1904–6, in three finely illustrated volumes.

About the same time (1896) appeared a magnificent quarto, with 61 colored plates, St. George Mivart's *Loriidae*, preceded by another admirable monograph, 45 plates, on the *Canidae* (1890).

Covering, after a fashion, the same ground as Gätke's famous *Vogelwarte Helgoland*, 1891, is an English translation by Rosenstock, entitled *Heligoland as an Ornithological Observatory*, published in 1895

The ever-present, ever-changing subject of faunal classification received an impetus by the writings of Kaup, especially in his *Allgemeine Zoologie* (1829) and twenty years later in his *Ueber Classification der Vögel.*

In this connection one must mention the illustrious name of Prince Charles Lucien Bonaparte, whose famous and useful *Conspectus Generum Avium* (begun in 1850) was in 1865 provided with an indispensable supplement by Finsch.

The professional naturalist ought to have within his reach Giebel's *Thesaurus Ornithologiae*, published in 1872–7, another valuable work of reference.

A well-known systematist, E. L. Trouessart (1842–1918), has written several annotated lists of mammals and birds, among them his *Catalogus mammalium*, 1898–1905, and his *Catalogue des Oiseaux d'Europe*, 1912. Other systematists have worked at the same task, among them C. D. Sherborn (q.v.) and C. O. Waterhouse. The latter first published his *Index Zoologicus* in 1902, as part of the indispensable *Zoological Record.*

Capt. Thomas Brown's illustrated works should receive mention here, more for their great rarity than for their additions to zoological knowledge. The Blacker and E.S.W. libraries have all his titles.

The works of George Robert Gray mark an important era in zoological literature. For many years in charge of the ornithological collections in the British Museum, he began by publishing his important *List of the Genera of Birds* in 1840, followed by a second edition in 1841. The E.S.W. Library has both of these editions, the latter one being Gray's own interleaved copy with MS. notes for subsequent treatises.

In 1844–9 appeared his *Genera of Birds* in three folio volumes, beautifully illustrated by Mitchell and Wolf, with 185 colored and 148 uncolored plates. It contains references to more than 2,400 generic names and forms an indispensable item in every research library on zoology.

The foregoing were privately printed, but in 1855 Gray brought out for the Museum his well-known *Catalogue of the Genera and Subgenera of Birds*, a small but useful manual based on his larger works.

Dr. Chas. Richmond, in a letter to Mr. W. L. Sclater, points out that the Carnegie Museum has appended to its library copy of this 1855 *Catalogue* an additional title-page reading 'A List of Genera and Subgenera of Birds', 1855 (Taylor and Francis), followed by a leaf of 'Addenda' printed on both sides. Dr. Richmond thinks this is not a part of the British Museum publication but was added in a few instances by Gray to presentation copies. At any rate they are certainly exceedingly rare leaflets.

In 1869–71 Gray published for the Museum his *Hand List of Genera and Species of Birds* in three parts, making three octavo volumes, thus adding more valuable tools to the armament of the research student.

The first zoological work published at the expense of the British Government, the *Fauna Boreali-Americana* (1829–37), appeared as a magnificent and wonderfully useful series, by Richardson and Swainson.

CHAPTER VIII

FROM NATURAL PHILOSOPHY TO MODERN BIOLOGY—THE LITERATURE OF VERTEBRATE ZOOLOGY, 1750 TO 1850 A.D.

S. Raffles—T. Horsfield—Reinwardt—C. J. Temminck—Mauduyt—T. Pennant—Schäffer—P. Brown—Hermann—Jacquin—Prosper Alpinus—Schwenkfeld—Salerne—D'Aubenton—E. Griffith—J. E. Gray—P. L. S. Müller—Tegetmeier—Gmelin—F. M. Daudin—J. R. Forster—Thienemann—Andrew Smith—Andersson—Holub and Pelzeln—Shelley—Layard—Reichenow—Von der Decken—Canon Tristram—Rochebrune—A. Milne-Edwards—A. Grandidier—Erasmus Darwin—E. Geoffroy Saint-Hilaire—F. Cetti—J. F. Blumenbach—Lamarck—Baron Cuvier—T. Schwann—Richard Owen—J. Müller.

THE last half of the eighteenth and the first half of the nineteenth centuries witnessed the visits of a number of zoologists not only to India but to its neighbouring countries. Among these naturalists one may mention Sir Stamford Raffles who first wrote, in 1817, a two-volume *History of Java* (valuable to students of zoology) and later contributed to Jardine's *Illustrations of Ornithology*.

Stamford Raffles, son of a British sea-captain, was born in Jamaica, July 5th, 1781. In 1795 he was appointed to East India House and settled in Penang. In 1805 he accompanied Lord Minto on an expedition to Java. In 1816 ill health required his return to England, where he wrote his *History of Java* and was knighted. In 1818 he returned to the Far East and formed a settlement at Singapore. Returning to England he founded the London Zoological Society, and died in 1826.

Thomas Horsfield (1773–1859), born in Philadelphia, but died in London, was the author of many treatises on the fauna of the Far East—the Dutch East Indies in particular. Perhaps one of his finest contributions to the literature of the subject was his *Zoological researches in Java*, 4to, London, 1824, with a large number of colored plates.

Dutch travelers sustained their reputation as active explorers by contributions to the natural history of their own East Indian possessions. Of these Caspar G. C. Reinwardt (1773–1854) was a prominent writer, although his reports were mostly botanical.

As a member of the *Natuurkundige Commissie in Ost-Indie* Salomon Mueller wrote (with H. Schlegel) a *Zoology of the Dutch East Indies*, folio, 1839–44, that is a reference classic. Working on the same task C. J. Temminck contributed *Verhandeling over de Natuurlijke Geschiedenis der Nederlandsche overzeesche bezittingen*, &c.

In quick succession followed Shaw's *Memoirs of the Museum Leverianum* and Mauduyt's *Ornithologie* (1784) in the *Encyclopédie Méthodique*, a second edition of which was begun in 1790 by Bonnaterre, after whose tragic death during the French Revolution it was finally finished by Vieillot in 1823. A little later appeared the first (folio) edition of the monumental treatise of Naumann on the birds of Germany.

In the preface to his *Dictionary of Birds*, Newton briefly cites the names of many ornithologists and their works as belonging to this period, among them Thomas Pennant (1726–98) (*Genera of Birds*); Schäffer (1718–90) (*Elementa ornithologica*); Peter Brown (fl. 1776) (*New Illustrations of Zoology*); Hermann (1738–1800) (*Tabula Affinitatum Animalium*); Jacquin (1766–1839) (*Beytraege zur Geschichte der Voegel*); Sparrmann (1748–1820) (*Museum*

Carlsonianum), and Hayes (*ca.* 1729–99) (*Portraits of Rare and Curious Birds*). These titles, with their dates of publication, appear in the accompanying Catalogue of the McGill libraries.

Early voyages to still more remote parts of the Old World and descriptions of their faunal and floral life are described by many hardy explorers. Only a few of these can be mentioned here; the expedition to Palestine of Georg Breydenbach, who furnished the first drawing of the giraffe; of Johannes Leon Africanus, a Spanish Arabian (El Hassan el Wasan, died 1532), whose writings on African zoology have been 'absorbed' by several other writers; of Prosper Alpinus (1553–1617), whose *Historia naturalis*, descriptive of animal life in Egypt, appeared in Leyden, 1735; and the many travels and reports of Pierre Belon, the celebrated naturalist whose works we have several times noted.

Quite early the Russian Empire was visited, explored, and described (mostly by Germans) to some degree in the interests of scientific research. Sigismond von Herberstein wrote one of these accounts (*Rerum moscoviticarum Commentarii*, Basel, 1556) and Caspard von Schwenckfeld another (*Theriotropheum Silesiae*, &c., 1603).

Towards the end of this period an important series of monographs, now very rare in their complete state, were published by C. P. Thunberg (1822–3) describing the faunal life of widely separated zoologic areas, among them America, Brazil, Japan, New Holland, China, the Guianas, *et al.*

In the year 1767 appeared a posthumous work by Salerne (d. 1760), issued from Paris and entitled *Histoire Naturelle . . . l'Ornithologie*. It was based on Ray's *Synopsis*, and Newton, always chary of praise, speaks very highly of the volume.

Acting under Buffon's influence and subsidized by the French Government, D'Aubenton, between 1765 and 1780, published his remarkable atlas entitled *Planches enluminées d'histoire naturelle*, already noticed. It appeared in 42 parts and pictured 1,008 animals, mostly birds. It was certainly a tremendous undertaking and there is to-day no more imposing collection of hand-colored plates. As the atlas was without accompanying text Buffon supplemented the work by his *Histoire naturelle, générale et particulière*, nine of the forty-four volumes being devoted to avian life. This arduous undertaking was begun in 1749 and was not completed until 1770, during which time Buffon had the assistance of several competent and careful collaborators. Too much praise cannot be given the author of this remarkable treatise, enlarging, as it did, every department of zoological research.

In 1827 Edward Griffith, a copyist of Baron Cuvier, wrote a respectable *Animal Kingdom* in 16 volumes that shows signs of original thought.

On the whole, the two Grays, George Robert (1808–72) and John Edward (1800–75), did more than any other systematists to place vertebrate zoology on an enduring basis. Their work in the British Museum and elsewhere is voluminous, catholic, and reliable. Only a small part of their essays, catalogues, and other library titles are mentioned in this Introduction but most of them have been listed in the Catalogue and Index.

During this period, also, P. L. S. Müller (1725–76) published a (translated and amended) edition of the *Systema Naturae*. Ten years later appeared Boddaert's *Table des Planches enluminéez*, reprinted by Tegetmeier. In 1786 Scopoli published his *Deliciae Florae et Faunae Insubricae*, a rare work, also reprinted and based on Sonnerat's *Voyage aux Indes*, &c. (1872–6). Two years later appeared Gmelin's celebrated compilation (the thirteenth edition) of the *Systema Naturae*. Another important general treatise on ornithology issued in the eighteenth century was F. M. Daudin's *Traité élémentaire*, &c.

Very rare and yet fundamental is the *Zoologia Indica Selecta* of J. R. Forster, Halle, 1781, printed in both Latin and German and based on Tennant's *Indian Zoology*.

Oology and its literature will not occupy much

space in this Introduction although the appended Catalogue will be found to list most of the works on avian and reptilian eggs. One of the finest colored atlases depicting the former is F. A. L. Thienemann's *Einhundert Tafeln von Vögeleieren*, 1845–54.

The mammals, reptiles, amphibia, and birds of the Ethiopian Region (Africa in particular) have had extensive literary attention, and it is not possible to mention all the deserving works on the vertebrate fauna of all the provinces. Prominent among them are Sir Andrew Smith's *Illustrations of the Zoology of South Africa* (1838–49), the second edition by Sharpe issued in 1884; Andersson's *Notes on the Birds of Damara Land* (1872); Holub and (August) von Pelzeln's *Beiträge zur Ornithologie Südafrikas* (1882); Shelley's comprehensive *Birds of Africa* (1896–1912); Layard's *Birds of South Africa* (1867); Newton's article in the *Encyclopaedia Britannica*, 9th edition; Reichenow's *Die Vögel Afrikas* (1904); von der Decken's extensive *Reisen in Ost Afrika* (1870); Canon Tristram's *Fauna and Flora of Palestine*; Rochebrune's *Faune de la Sénégambie* (1884); Levaillant's *Oiseaux d'Afrique* (1799–1808), and the fauna described in the *Histoire physique, naturelle et politique de Madagascar* (1875–84) by Alphonse Milne-Edwards, Alfred Grandidier, and others.

The period under consideration Nordenskiöld describes under the caption 'from natural philosophy to modern biology'. Prominent among the pioneers (and an early one) that contributed to its brilliant episodes was Erasmus Darwin (1731–1802), the grandfather of the illustrious Charles. He was a medical practitioner in Lichfield. He wrote many papers for the Royal Society but the treatise that made him most widely known (apart from his relationship to his famous descendant) and which was translated into several continental languages is his *Zoonomia* (1794), a peculiar but original thesis in which the author attempts to formulate the laws that govern the origin and progress of animal life.

Among the first of the comparative biologists in the modern sense may well be placed the versatile Étienne Geoffroy Saint-Hilaire (1772–1844). Born near Paris, he entered the priesthood but, despite this handicap, was appointed professor of zoology by the Republican Government and at once showed himself to be, among other accomplishments, a brilliant anatomist. He accompanied Bonaparte to Egypt as zoologist and contributed to the immense illustrated folios of the *Description de l'Égypte* (q.v.) in which are recorded the activities of the numerous scientific observers on the exploration staff of Napoleon. Later he went, also under Napoleon's orders, to 'collect' specimens from Portuguese museums to enrich the French State, much as his master was wont to 'transfer' old masters from the galleries of Italy to the Louvre and similar collections. Saint-Hilaire's rivalry with Cuvier, in which Goethe supported the former, is well known; it continued until Saint-Hilaire's death. His studies in comparative anatomy were mostly upon the osteology of vertebrates, while his speculations as to the evolution of the larynx and ear in mammalia and birds based on actual dissection, are likewise well known.

It was in 1777 that Francesco Cetti wrote his several monographs on the vertebrate zoology of Sardinia.

Johann Friedrich Blumenbach (1752–1841) requires a few lines since, in addition to his studies in anthropology (*Anthropological Treatises*, &c., trans. 1865), he made valuable observations on the comparative anatomy of the higher apes and other animals; and his soubriquet of 'Magister Germaniae' was in part given him because of his introduction into the Fatherland of this very study of comparative anatomy—several years before Cuvier introduced it into France.

The Chevalier de Lamarck (whose family name was de Monet) (1744–1829), cadet of a poor but noble family of Picardy, eventually rose to fame and wide influence in the scientific world. Of the many literary contributions he made to biology we are mostly interested in his *Philosophie Zoologique*, 1809, the second

edition of which was published in 1830, and his earlier work, *Recherches sur l'organization des corps vivants*, 1802. In the former treatise he develops a theory of animal evolution—the development of life in nature—which suggests the coming of Darwinism.

Baron Georges L. C. F. D. Cuvier (1769–1832), of French Huguenot extraction, was born in the Duchy of Württemberg. Although very poor he applied himself with absorbing diligence to his collegiate studies and rose during and after the Napoleonic era to occupy the most influential position in the world of natural science of any man of his country. His treatises on comparative anatomy, in the preparation of which he was greatly assisted by Duméril (q.v.), and his essays on classification of the animal kingdom are too well known to students of natural history to require extended comment. His *Règne animal*, 1817, passed through numerous editions and translations into all the European scientific tongues, many of which are shelved in the McGill libraries. One must not pass over, either, his studies in paleontology. His celebrated work, *Recherches sur les ossemens*, 1812, is a work that ushered in the modern study of that science.

Of the many earlier nineteenth-century histologists, whose researches became so much more efficient by the employment of modern laboratory methods, few devoted themselves largely to pure zoology. In passing, mention may be made of one of these—Theodor Schwann (1810–82), a gentle soul, son of an obscure bookseller in a small Prussian town. He became professor in Louvain and Liége and is best known for his cell-theory, first fully developed in his *Mikroskopische Untersuchungen der Tiere und Pflanzen*. J. J. Walsh (*Makers of Modern Medicine*, 1907) gives a good account of the life and works of this eminent man.

Richard Owen (1804–92), contemporary of Johannes Müller, was born in Lancaster, the son of a merchant. His fame as a naturalist seems about equally divided between comparative anatomy and paleontology, but his activities, as curator of the Hunterian Museum and as keeper of the Natural History Branch of the British Museum at South Kensington (until he was 80 years old) kept him in touch with all departments of biological research.

Johannes Peter Müller, a pioneer in experimental physiology and one of the most popular and brilliant of German biologists, was born the son of a shoemaker at Coblenz in 1801. He took his degree in medicine and in 1830 was appointed professor of chemistry at Bonn, a position he held for nearly 30 years. His work in oceanic zoology and his researches in comparative histology interest us most, especially as he (late in life) was engaged almost exclusively with (the lower) vertebrates. He published a well-known monograph on the lancet fish (amphioxus) and spent over nine years on the skeleton, nerves, and muscle system of the Mixinoidei—those borderland vertebrates, a study of whose minute anatomy throws so much light on the structural development in the higher forms.

Mention has several times been made of the hundreds of works in all languages on 'game' animals and their pursuit in the interests of so-called sport. These publications are among the earliest printed works on zoology.

Although the Compiler views with a mixture of contempt and wonderment the chase after inoffensive animals by men armed with high intelligence and higher power guns, and although he seems unable to comprehend the cruel murder of beautiful and often useful fellow creatures for the mere gratification of the lust to kill, yet he freely admits that accurate accounts and records of fauna now under discussion are frequently found as part of these melancholy tales of slaughter. For this reason alone they are included in the present volume, in the hope that when the veneer of civilization (with which some humans seem to be very thinly smeared) is exchanged for the thicker varnish of a rational pity and a feeling of animal brotherhood, these publications and the acts that prompted them will be only a memory of centuries that have long passed away.

CHAPTER IX

SOME IMPORTANT ZOOLOGICAL TREATISES AND SERIALS PUBLISHED DURING THE NINETEENTH CENTURY — MONOGRAPHS ON LOCAL FAUNAS — TEXTBOOKS ON ZOOLOGY — REPORTS OF EXPLORATIONS AND SURVEYS — THE MODERN LITERATURE OF VERTEBRATE BIONOMICS.

H. Stannius—P. L. and W. L. Sclater—M. Neumayr—Treatises on Paleontology—Zittel—Cope—W. K. Parker—Woodward and Smith—Flower and Lydekker—Ernest Ingersoll—Beddard—W. K. Gregory—D. G. Elliot—H. F. Osborn—Scudder—Theodore Palmer—H. G. Bronn—Cuvier and Saint-Hilaire—De Blainville—R. P. Lesson—T. H. Huxley—Giebel—Vogt and Specht—Alex. Wilson—Prince Chas. L. Bonaparte—J. J. Audubon—Prince Wied-Neuwied—Monographs of Local American Faunists—Giraud—T. M. Brewer—P. R. Hoy—Bailey—Dawson—Lewis and Clark Expedition—Thos. Say—W. E. Leach—Edward Sabine—De Kay—P. Pallas—Thomas Nuttall—Reinhardt—N. A. Vigors—Capt. Beechy—C. P. Holböll—Titian Peale—W. Gambal—Geo. A. McCall—George N. Lawrence—John Cassin—S. F. Baird—Sir John Richardson—Elliott Coues—Louis Figuier—British Museum Handbooks—Wm. Bingley—Starke and Sclater—Jerdon—Blanford—Anthropologic Journals and Treatises—W. P. Pycraft—S. J. Holmes—W. Bateson—Local Societies and their Organs—(American) Journal of Mammalogy—Laboratory Experimentation—Heider and Korschelt—Louis Roule—Hertwig—Societies for the Protection of Animals—T. S. Palmer—Gilbert Pearson—Alex. Wetmore—Ray and Willughby Societies.

IT is a task of no small difficulty to choose from the voluminous nineteenth-century literature on vertebrate zoology a satisfactory list of representative titles. However, here are a few of the more important.

As early as 1856 H. Stannius wrote a very useful treatise on amphibian anatomy, *Zootomie der Amphibia.*

A revival of interest in the distribution of animal life on the earth led to the appearance in 1896 of Lydekker's *Geographical History of Mammals,* Cambridge, followed by the Sclaters, father and son, who published (1899) in London their valuable *Geography of Animals.*

In 1862 J. A. Gaudry presented his classic treatise, *Animaux fossiles et geologie de l'Attique.*

In 1873 Kowalevsky wrote his systematic treatise entitled *Versuch einer natürlichen Classification der Fossilen Hufthiere.*

Nicholson and Lydekker published in 1889 their useful two-volume *Manual of Paleontology.*

An ambitious project by Melchior Neumayr (1845–90) began to appear in 1899—*Die Stämme des Thierreichs.* This natural philosophy of extinct animals is here treated by an eminent Austrian but, unfortunately, the great work was never completed and much of the published matter treats of invertebrates.

In 1898 Woodward and Smith published a classic textbook, *Outlines of Vertebrate Paleontology,* that should be known to all students of the subject.

On the whole the most important German treatise (later translated into English) that takes up the entire subject is von Zittel's *Handbuch der Paläontologie,* Leipzig, 5 vols., 1876–93.

A philosophic work, mostly paleontologic, is Chas. Depéret's *Les Transformations du Monde animal*, Paris, 1907.

Cope's *Primary Factors of Organic Evolution*, Chicago, 1896, furnishes the author's views on the relations of paleontology to Darwinism.

Several large, popular and well illustrated volumes on 'animals of the world' appeared during 1884, including Cassell's *Natural History*, N.Y., and the *Standard Natural History*, Boston. These works contain much of value to the student of mammalogy.

In 1885 W. K. Parker wrote his scientific treatise *On Mammalian Descent.*

During 1859–97 appeared the monumental and as yet unfinished systematic H. G. Bronn's *Klassen und Ordnungen des Thier-Reichs*, written in collaboration with several well-known zoologists. This fine treatise is noted especially for the attention to anatomic details.

In 1891 Flower and Lydekker issued their excellent work on *Mammals, Living and Extinct.*

During 1907 appeared the second edition of Ernest Ingersoll's dependable volume on the *Life of Animals.*

In 1910 W. K. Gregory wrote his monograph on the *Orders of Mammals*, N.Y.; and one must not forget the communication on the same sub-class contributed in 1902 to the Cambridge Natural History series by Beddard.

D. G. Elliot's well known *Synopsis of Mammals* was published at Chicago in 1901. It is a systematic and technical treatment of the subject. In 1910 appeared H. F. Osborn's *Age of Mammals in Europe, Asia and North America.*

In 1904 D. G. Elliot brought out his work—a very creditable one—on the mammals of the West Indies and Middle America.

Reference may again be made here to S. H. Scudder's *Nomenclator Zoologicus*, 1882–4, a most useful alphabetical list of all generic names to 1879, with a Supplement.

A reference work of distinct value to advanced students is Theodore Palmer's (1904) *Index generum mammalium.* One meets with it now and then in the form of an author's separate. It was first contributed, as No. 23, to *North American Fauna.*

Here the Compiler wishes to refer to and to advise perusal by the student of important French monographs on mammals—that of Cuvier and Saint-Hilaire, *Histoire naturelle des mammifères*, Paris, 1824; the wonderfully illustrated treatise by De Blainville (1839–64) in four quarto volumes, Paris—*Ostéographie des Mammifères*, and the ten-volume treatise of R. P. Lesson, *Histoire naturelle des Mammifères et des Oiseaux*, the last-named one of the Buffon suites, first edition 1828, second 1840.

In 1871 T. H. Huxley brought out his well-known *Anatomy of vertebrated animals*, in which mammals are given a large share of attention.

Giebel, in 1874, contributed the article on *Die Säugethiere* to Bronn's *Klassen u. Ordnungen des Thierreichs.*

Vogt and Specht published at Munich in 1883 *Die Säugethiere im Wort und Bild*, a widely copied and popular treatise, much of whose text and most of whose excellent plates form the chief attraction of many a subsequently published domestic and foreign book on mammalogy.

We must bear in mind that it was during this period that Alex. Wilson (1766–1813), J. J. Audubon (1780–1851), and Prince Charles Lucien Bonaparte (1803–57) (most of whose works are found on the shelves of the McGill libraries) carried on their famous observations of American bird life and published their wonderfully illustrated treatises. The Compiler prefers to refer the reader to the annotated titles of these celebrated zoologists in the Catalogue rather than to attempt an evaluation of their works here.

An exception must, however, be made to Audubon's *opus magnum* the *Birds of America* (1827–38), elephant folio, 4 vols., 435 hand-colored plates, reproduced life-sized drawings. With the exception of the French Government *Description de l'Égypte* (q.v.) this huge atlas of

American avifauna forms the largest volumes ever issued on vertebrate zoology. Moreover the life-size plates (determined by the measurements of the wild turkey-cock) are reproductions of the largest drawings of animals known to librarians. For more than a century it was believed that the Audubon drawings were the largest portraits of birds known to collectors—most of the originals of which are now deposited in an American Museum. This belief was held until the discovery in 1924 of several hundred life-size paintings made by Lady Elizabeth Gwillim, Madras, 1800–6, of Indian vultures, eagles, and storks; now in the Blacker collection. The reader is referred to the Catalogue for a further description of these unique orignals, that antedate Audubon.

About this time, also, Prince Maxmilian of Wied-Neuwied (1782–1867) visited various sections of the American continents and reported his zoological observations in a number of valuable and well-illustrated volumes, among them *Reise nach Brasilien in den Jahren 1815–1817*, 2 vols. with atlas, Frankfurt-am-Main. He also wrote a *Reise in das innere Nord-America in . . . 1832 bis 1834*, also 2 vols. with atlas, folio, Coblenz, 1838–41, as well as a *Verzeichniss der auf seiner Reise in Nord-America beobachteten Säugetiere*, Berlin, 1862.

Several of the local American faunists—very numerous in the nineteenth and twentieth centuries—have been mentioned with their writings. Of the early writers we should not forget Jeremy Belknap (*History of New Hampshire*, 1792); Samuel Williams (*History of Vermont*, 1794); Samuel Hearne (*Hudson's Bay to the Northern Ocean*, 1795), all of importance; W. B. O. Peabody's *Birds of Massachusetts*, 1839; Giraud's *Birds of Texas*, 1841; the same writer's *Birds of Long Island*, 1844, are elsewhere commented on; J. H. Linsley's *Birds of Connecticutt*, 1843; Thomas Mayo Brewer's *Birds of Massachusetts*; the Bairds' (Wm. M. and S. F.) *Lists of the Birds of Carlisle*, Penn.; S. W. Woodhouse on the *Birds of the Southwest*, later, also, by A. L. Heermann and T. C. Henry; Zadock Thompson's *Natural History of Vermont*, 1842; P. R. Hoy's *Birds of Wisconsin*, 1852; the *Birds of Ohio* by M. C. Read, as well as by Dawson and Robert Kennicott, and much later productions, Bailey's *Birds of Virginia*; Dawson's *Birds of California*, and the *Birds of the State of Washington* by the same author. See the appended Catalogue.

The earlier writers on the local fauna of North America were followed during the succeeding fifty years by numerous naturalists who covered very thoroughly every state in the Union.

The Lewis and Clark *Travels to the Source of the Missouri River*, London, 1814 (and several other editions), must be mentioned here, inasmuch as Wilson made use of much of the material gathered by that famous expedition. This was done in conjunction with George Ord (1781–1866) whose important contributions to American ornithology are emphasized in Günther's *Geography*, 1815.

Thomas Say (1787–1834) and others also wrote upon the zoological results of several expeditions within the limits of the United States, for example a *Narrative of an Expedition to the Sources of St. Peter's River in 1823*, led by Long. Towards the end of the Wilson period Wm. E. Leach (1790–1836) and Edward Sabine (1788–1883) furnished reports on American Arctic fauna as a result chiefly of the exploring expeditions of Parry, Franklin, and Ross.

Some of the later and numerous State publications had something more than a strictly local value; e.g. the important *Zoology of New York* in 6 vols., 1842–4, published by De Kay in 5 vols. as part of the 20-volume Natural History of that State. Many other States followed the example set by New York.

An outstanding contributor to the zoological literature of America was the famous Spencer Fullerton Baird (1823–87) who, as Secretary of the Smithsonian Institution for many years, was a recognized leader in the scientific world. His labors and writings are too numerous for annotation here but his best known monographs on North American fauna

appear as contributions to government publications, both State and Federal, among them the *Mammals of North America*, 3 parts, many colored plates, 1859; a *Catalogue of North American Birds*, &c., 1858; *Birds of North America*, Phila., 1860, written in conjunction with J. Cassin; and *A History of North American Birds*, with T. M. Brewer and Robt. Ridgway, 3 vols., Boston, 1874. Most of Baird's important publications are shelved in the McGill libraries.

To this period belongs also Peter Pallas' celebrated, rare, and valuable 3-volume *Zoographia Rosso-Asiatica* [1811–(42)] with its second edition, reprints, and addenda. This treatise and others by the same author are very important for American zoologists as they describe many new Arctic species, especially those faunal forms that are now (or were) found in Alaska.

In the Catalogue and elsewhere in this Introduction the Compiler has given brief notices of the works of three more zoologists who contributed so remarkably to the Audubon period of American faunal literature—Richardson, Swainson, and Nuttall. To these one must add at this juncture the contributions of the Danish naturalist, J. C. H. Reinhardt (1776–1845), on the fauna of Greenland (1838); the report by N. A. Vigors (1839) on the zoology of Capt. Beechey's famous *Voyage*; the description by C. P. Holböll (1795–1856), of the avifauna of Greenland, and the equally important contributions to the faunal life of America by S. W. Woodhouse, William Gambel, George A. McCall, and Titian Peale.

It was about this time that four names of American zoologists—several times mentioned elsewhere in this Introduction—shone with a scientific light of the same quality as that with which Wilson, Audubon, and Bonaparte illuminated the world of vertebrate zoology. They are Cassin, Baird, Lawrence, and Brewer.

John Cassin (1813–69) is best known for his zoological (especially ornithological) reports on the Wilkes Exploring Expedition, on Commodore Perry's Japan Expedition, on the Gillis Expedition to Chili, and for his *Illustrations of the Birds of California* (1853–6)—a large octavo volume with fifty colored plates. The outstanding character that was especially Cassin's is his equal familiarity with Old World and Neotropical species. His works should be carefully reviewed by students of vertebrate zoology. Among the minor and yet important works of this naturalist is the series of catalogues (1849–53) of birds in the collections of the Academy of Natural Sciences, Philadelphia.

George Newbold Lawrence (1806–95), one of the Couesian 1853–8 triad (comprising in addition Baird and Brewer), is best known to us for his work on the ornithology (and mammalogy) of Central and South America, and for his collaborations with his two compeers. Full justice to his several activities is furnished in L. S. Foster's biography of this well-known writer.

Thomas Mayo Brewer (1814–80), another person of this trinity, who, apart from several treatises written in conjunction with others, distinguished himself as the father of North American öology, his published work (pp. 140 and 5 pl.) on that subject unfortunately proceeding no further than Part I, 1857. It was in 1874 that he published the first part of his famous *History of North American Birds*, to be completed by others after his death.

Although mention has several times been made of the *zoologica americana* entirely produced or mostly inspired by that versatile writer and naturalist Spencer Fullerton Baird (1823–77) he still deserves, what lack of space forbids, another page all to himself. The reader is advised to make himself acquainted with the celebrated *Pacific Railway Reports*. The volumes devoted to zoology are not only useful for a study of North American fauna but they cast much light on the career of Professor Baird. For his other numerous single and conjoint volumes the student is referred to G. B. Goode's bibliography as well as to the titles in the appended Catalogue.

At this juncture the Compiler desires to draw attention to that magnificent series of mono-

graphs entitled *Fauna Boreali-Americana; or the Zoology of the northern parts of British America*, 3 vols. (4 pts.), many colored plates, edited 1829–37 by Sir John Richardson. He wrote on the fishes, quadrupeds, and, in collaboration with W. Swainson, the birds. Richardson was an indefatigable explorer and writer on the zoological results of the expeditions in which he took so prominent a part. These included the two governmentally conducted voyages to the North Pole in search of Franklin and (in 1845) another made chiefly on his own responsiblity. The records of these voyages will be found in the appended Catalogue.

In many respects Elliott Coues (1842–99) was the most brilliant writer on vertebrate zoology America has so far produced. Certainly his *Field Ornithology* (1874) and his *Key to North American Birds* (1872) with their numerous subsequent editions are still the standard textbooks for students of North American bird life, while his famous *List of Faunal Publications relating to North American Ornithology* (down to 1880) has so far been unsurpassed. One must bear in mind his *Fur-Bearing Animals* (1877) and other treatises that furnish evidence of his wide knowledge of faunal life in general. His many contributions to the literature of vertebrate zoology are listed in the appended Catalogue.

In 1850 John E. Gray wrote his *Hoofed Quadrupeds* (as part of the Knowsley Hall output) with 62 colored plates.

Typical examples of popular and well-illustrated works on vertebrate zoology on the market in recent years are two series published in America during 1884. These are Cassell's *Natural History*, N.Y., and the *Standard Natural History*.

As a contribution to comparative psychology, K. Groos has given us an entertaining book, *The Play of Animals*, 1900.

In 1901 Frederic Lucas wrote a popular but serious contribution to paleontology, *Animals of the Past*, N.Y.

Mention may once more be made of that extensive, popular treatise, Hutchinson's *Animals of the World*.

During 1837 H. G. L. Reichenbach contributed to German faunal literature his *Deutschlands Fauna*, the first and second parts being devoted to mammalia and birds.

The important atlas of C. J. Lorek appeared in 1834–7, entitled *Fauna Prussica*, and depicts (130 col. pl.) the principal faunal forms of North Germany.

Thomas Huxley, in 1871, published his famous *Anatomy of Vertebrated Animals*, long to remain a popular textbook on that subject.

Although they are not regarded as strictly scientific literature yet one must not pass by the interesting, rather early and much translated series of books, mostly on prehistoric zoology, by Louis Figuier, full titles of which are listed in the appended Catalogue.

For the past half-century the Trustees of the British Museum have published a long array of Catalogues and Handbooks on Vertebrate Zoology that have been of incalculable value to students and systematists. They are rich sources of information upon which innumerable book-makers have drawn for materials both textual and illustrative. Every natural history library should have and every advanced student of vertebrate zoology should familiarize himself with these indispensable monographs.

William Bingley (1774–1823) published a number of semi-popular works on mammalogy during the early nineteenth century, among them *Memoirs of British Quadrupeds*, 1809.

In 1900–6 Stark and Sclater published their classic work on the *Fauna of South Africa*.

Quite worth the student's attention is T. C. Jerdon's *Mammals of India*, 1867.

A very useful work is Blanford's *Zoology of Persia*, London, published in 1876, followed (1888–91) by the volumes on *Mammalogy*, in the *Fauna of British India*.

During this period, also, appeared numerous travelers' accounts of Asiatic natural history, among them Alcock's *Naturalist in the Indian Seas*; Hickson's *Naturalist in North Celebes*;

Siedlecki's *Java*, and many more of the same type.

Although the Compiler has no intention of recording even the principal works on anthropology that are to be found on the shelves of the McGill libraries, a few titles in the Blacker Library are especially desirable for students, among them several sets of periodicals—the *Journal of the Anthropological Institute of Great Britain and Ireland*, 1872 to date; *The Anthropological Review*, 1863–70; *Transactions, Journal*, and other publications of the *Anthropological Society of London*, 1863–71; *Man*, as well as such monographs as Huxley's *Man's Place in Nature*, 1863; J. F. Blumenbach's *Anthropological Treatises*, and similar works, for which consult the Student's Index.

Somewhat later there was published a work of classic importance, W. P. Pycraft's *Courtship of Animals*, 1913.

S. J. Holmes' *Studies in Animal Behaviour*, published in 1916, is well worth the student's attention.

Still later appeared a textbook by T. H. Morgan and others, *The Mechanism of Mendelian Heredity*, 1919.

One of the best authorities on animal heredity is W. Bateson, whose works are listed in the appended Catalogue.

In 1920 was published the two-volume edition of Dendy's *System of Animate Nature*.

E. N. Harvey published, also in 1920, *The Nature of Animal Life*.

Many of the British local societies issuing worth-while zoological periodicals have been mentioned but many more remain to be noted, among them the Cardiff Naturalists' Society, founded in 1867, with *Transactions* regularly published since 1870. Another of the lesser organizations that might be mentioned, as typical of a hundred others, is the Woolhope Naturalists' Field Club (founded in 1851) whose *Transactions* have been regularly issued since 1856.

Reference has before been made to the many local natural history societies in all countries and their numerous publications—mostly popular in character. These associations are unusually common throughout German lands, a typical example being the *Naturforschender Verein in Brünn* whose *Verhandlungen* have been regularly published since 1863.

The *Société d'Histoire Naturelle* of Colmar, founded in 1859, has been publishing its important *Bulletin* since 1860.

Reference has been made to several South American foundations of importance in a study of vertebrate zoology. One of these is the Argentine Museu Nacional (founded in 1818) whose *Archivos* and *Revista* have appeared since 1876.

In addition to North American Societies and their publications elsewhere noted, the Buffalo Society of Natural Sciences, founded in 1861, has published its important *Bulletin* since 1873.

In 1853 was founded a very important American center for natural science research, the California Academy of Sciences; since that date the Academy has regularly issued *Proceedings* and (later) a *Bulletin*.

In 1860 was founded the now famous Museum of Comparative Zoology, at Harvard University. Since 1861 it has published a number of periodicals of great value to students of vertebrate zoology, chief among them the *Bulletin* (1863) and *Memoirs* (1864).

The most important special periodical published in the U.S.A. on the subject of its title is the *Journal of Mammalogy*, organ of the American Society of Mammalogists (founded in 1919).

Among the comparatively recent societies of Italian origin is the *Accademia Gioenia di Scienze Naturali* of Catania, founded in 1824 and publishing several periodicals, *Atti* and *Bullettino*, since 1825.

A recent foundation in Italy (1900) is the *Unione Zoologica Italiana* that has published the *Archivio Zoologico* since 1902.

Once more and before leaving the subject, the Compiler draws the attention of librarians and research students to the fact, not sufficiently emphasized, that the publications of the Natural History Department of the British

Museum offer extremely valuable and informative scientific literary material in most sections of biology. This Introduction and Index cannot, unfortunately, do more than mention a small fraction of these invaluable publications, but the Compiler advises the advanced student in particular to search the British Museum and this Catalogue for such additional zoological titles upon which he may be seeking information.

The literature of zoology has, in recent years, recorded the results of *laboratory experimentation*, especially along evolutionary and hereditary lines. A good review of this work is found in Cunningham's *Modern Biology*. Treatises, essays, reports, and articles on *ecology*, *physiology*, *biochemistry*, *embryology*, *histology*, *cytology*, *economic zoology*, and *experimental zoology*[1] also show a decided increase, especially as monographs and in periodical writings, thus emphasizing the contention of the Compiler, elsewhere stated, that by far the most important and up-to-date portion of our twentieth-century literature on the varied relations of vertebrate zoology is to be found in serials, magazines, and journals devoted to that subject.

Of the many modern textbooks on the comparative embryology of vertebrates listed in the present Catalogue, some of which have already been mentioned in this Introduction, the four-volume *Lehrbuch* of Heider and Korschelt (1902–10) is to be recommended to the advanced student.

One of the most complete and erudite of the many treatises on embryology with a basis in comparative anatomy is Louis Roule's *L'Anatomie comparée*, &c., 1898.

Another and better known treatise on the same subject is Hertwig's *Lehrbuch der Entwicklungsgeschichte*, 6th ed., 1898.

Societies for the care of and prevention of cruelty to animals have been founded in most civilized countries and their organs for propaganda regularly published. Among the best known is the very useful and important Society for the Prevention of Cruelty to Animals, in England. In Italy, as a further example, the *Associazione romana per la protezione degli animali*, as well as a recently organized Society for the Protection of Birds, have been formed and are doing admirable work.

The literature of bird protection has several times been mentioned in the present volume; and many societies have issued (propaganda) literature and periodicals devoted to the good cause, the bulletins and transactions of the *Royal Society for the Protection of Birds* in England, and the Audubon Societies in America, for example. Similar associations, with their attendant literary output, have long been established in Germany and elsewhere in Europe. Practically all these sets of serials and journals are listed in the appended Catalogue.

One of many essays on bird protection in America is Theodore S. Palmer's *Legislation for the Protection of Birds*, Washington, 1900.

The recently formed (1929) International Committee for Bird Protection has issued a *Bulletin* under the editorial management of Gilbert Pearson which surely will be productive of much good.

The protection of animals, whether avian, mammalian, or piscian, from their most dangerous and persistent enemy—man—is an end devoutly to be wished. The human creature, with all his boasted development from the troglodyte condition, is still largely a savage. The urge to adventure on mountain, jungle, or sea that some unfortunate animal, especially if attractive because of its superior size, beauty, or supposed food value, may be murdered *secundum artem* cannot be resisted by the so-called sportsman. The lust to kill for the sake of killing dominates many a man, otherwise a model citizen, a kindly husband, and an excellent father. These contradictory elements in human character seem to justify the poet's lines:

> 'The more', said one, 'of men I see,
> The more do dogs appeal to me.'

[1] In this connection the student should have access to the valuable *Journal of Experimental Zoology*.

On those rare occasions when the sportsman realizes more or less clearly that he is guilty of something he ought to be ashamed of, instead of telling the world all about it in print, he is pretty sure to disguise his killings under such titles as 'A Hunter and Collector with Rod and Gun in Utopia', or 'Travels of a Sporting Naturalist in the Paradise Islands', and so on; or perhaps he salves his conscience by presenting a museum or zoological society with a few pelts, horns, or birdskins, and hires some one to make a list of systematic names in Appendix A. The Compiler has no quarrel with legitimate and rational collecting for scientific purposes alone, but he has lived long enough to see the extinction of some of the most charming and lovable birds and mammals on earth through man's insensate greed and stupid barbarism. For example, according to reliable authorities, gunners in the United States take toll of the wonderful wild ducks and geese of that country to the number of quite 10,000,000 every year. This wholesale, needless slaughter, combined with the extensive drainage of marshlands and ponds (the destruction of feeding grounds) has resulted in an enormous decrease in the annual migration of these 'game birds' despite the establishment of sanctuaries, gun-club rules, and the passage of local, federal, and international laws. If this 'sport'—legal and illegal—continues as it is now carried on, in twenty years such birds as the beautiful Wilson Goose will be as rare as the exterminated Sandhill Crane or the Trumpeter Swan.

An attempt to preserve threatened faunal life in general is the purpose—rather vain, perhaps—of the *Conférence Internationale pour la Protection de la Nature*, whose illustrated *Recueil des Procès-Verbaux* of the 1913 meeting, pp. 247, was published in Berne in 1914.

What will be the end of the present propaganda now carried on, chiefly by Gilbert Pearson, in a similar effort for the preservation of avian life, remains to be seen. In any event the attempt is at least an advance on the previous world attitude—viz. indifference to and complete ignorance of even the difficulties of the problem.

As pointed out by Dr. Wetmore (*Encycl. Brit.*, 14th ed., p. 918), bird protection, when properly enforced, is a potent factor not only for the salvation of species but in greatly increasing the numbers of many useful birds. He says that in the United States 'there are 76 bird reservations under jurisdiction of the Department of Agriculture, ranging in size from a few acres to several hundred square miles, while light-house reservations, national parks, and similar tracts under supervision of other governmental departments have also been designated as bird preserves. In addition, various States are now developing the idea of game sanctuaries which are also refuges for birds. Pennsylvania, at the present time, has 88 sanctuaries of this kind, including nearly 73,000 acres. Private sanctuaries are also multiplying and afford much protection; many have been established as local enterprises by cities, towns, or by groups of private individuals'.

The United States Governments, in conjunction with private enterprise, are doing what they can to prevent the extinction of that largest of the deer, the American Elk (Wapiti), of which about 40,000 head still survive of the vast herds that once roamed the mountains of North America. Starvation, as the result of unusual winters, restriction of feeding areas, and savage butchery by 'sportsmen' of unprotected herds during the 'off' season, are slowly reducing the numbers of this beautiful, inoffensive mammal.

The student of faunal literature has been much assisted by the formation of Societies for the reprinting and editing of rare books, and occasionally for the publication of manuscript treatises that held no prospect of financial gain. Of these useful and numerous associations in Europe and America the Willughby Society and the Ray Society (founded in 1844) stand pre-eminent. Among the first issues of the latter was the *Bibliographia Zoologiae* of J. L. R. Agassiz, edited by H. E. Strickland (q.v.).

CHAPTER X

SOME IMPORTANT ZOOLOGICAL TREATISES PUBLISHED DURING THE NINETEENTH CENTURY, CONTINUED — MONOGRAPHS ON LOCAL FAUNA — TEXTBOOKS ON VERTEBRATE ZOOLOGY — THE LITERATURE OF VERTEBRATE BIONOMICS.

Reports on Captain Cook's Voyages—Pallas—Pennant—Lyonnet—De Geer—O. F. Müller—Cavolini—Della Chiaje—Ledermüller—A. Trembley—Lamarck—R. Owen—Agassiz— Johannes Müller—J. H. Blasius—Rathke—Meckel—J. V. Thompson—the Van Benedens—Claparède—Dalyell—Sars—Allman—Inventors of classifications schemata—H. Milne-Edwards—R. Leuckart—Thos. Huxley—The Microscopist-naturalists, von Leeuwenhoek and Malpighi—Works of the morphologists, Carl G. Carus, Kielmayer, Gotthelf Fischer, Dallinger, F. Tiedemann, Bojanus, J. F. Meckel and C. A. Rudolphi—Treatises on biochemistry by Theodore Schwann—Bionomics—The Far East in Nineteenth-Century Zoological Literature—Bélanger—The Siebold Family—Temminck and Schlegel—Mauritius and its Naturalist Visitors—African Zoology—Andrew Smith—W. L. Distant—Clapperton and Denham—W. C. H. Peters—Von der Decken—Napoleon's *Description de l'Égypte*—Ehrenberg and Hemprich—P. E. S. Rüppell—E. Fenzl—P. Bleeker—C. T. Lefèbvre—M. T. von Heuglin—M. F. Wagner—W. L. Sclater—Webb and Berthelot—Bory de Saint-Vincent—R. T. Lowe—Robert Ridgway—Ornithology of Hawaii—Zoology of the West Indies—Léotaud—Charles Cory—Lambeye—Alex. Wetmore—Literature of Canadian Fauna—de la Hontan—Thos. Nuttall—McIlwraith—Taverner—Ross—Chamberlain—Elliott Coues—Bendire—Examples of Monographs on particular Species and Genera—Paleontology—R. Owen—Woodward family—C. G. Ehrenberg—Dictionaries of Natural History—P. H. Gosse.

THE interval in time between Linnaeus and Darwin is marked by numerous and important additions to the literature of zoology. A few of these have already been mentioned; others are Solander and Banks, who reported on the zoology of the first of Captain Cook's famous voyages; Peter Simon Pallas (1741–1811), writer on the fauna of Siberia; Thomas Pennant, famous for his descriptions of British fauna; Lyonet (1707–89) and De Geer (1720–78), both naturalists of note; O. F. Müller, Cavolini (1756–1810), Della Chiaje (fl. 1828), Ledermüller (1719–69), and Abraham Trembley (1710–84)—all observers adding to the literature of lower-animal—mostly aquatic—forms of life.

The publication of the Linnean system greatly stimulated definite descriptions of zoological types and a decided improvement was henceforth noticeable in the literary quality of monographs on zoological subjects.

A brief account is elsewhere given of the career of J. B. P. Lamarck (1744–1829), a celebrated French naturalist who introduced the term *invertebrata* into the nomenclature of zoology. He was at first a professor of botany, but late in life, and before he became blind, he turned his attention to zoology, his greatest work on that subject being the *Histoire Naturelle des Animaux sans Vertèbres*, 1815–22. In general he may be regarded as a supporter of Linnaean doctrines and in many particulars

he saw eye-to-eye with and was one of the forerunners of Charles Darwin.

A still more celebrated zoologist—elsewhere noted—was the famous Baron Georges Cuvier (1769–1832) who early devoted his life to the study of biology and, among many other scientific activities, instituted views of animal life largely based on anatomical research; indeed it was he who first emphasized the importance of anatomy as the *chief basis* for a systematic classification of the animal kingdom.

Another product of the nineteenth century several times mentioned, and perhaps the best known of Cuvier's disciples, is Richard Owen (1804–92), a great authority on the paleontology, morphology, and histology of many forms of faunal life. In common with the writers above mentioned Owen published a classification picturing his views of the relationship of members of the animal kingdom, all of which is reflected in the zoological literature of the writer's day and generation.

Here the Compiler draws attention to the extensive and valuable zoological works of the distinguished Russian writer, J. F. Brandt. Among his treatises in the Blacker Library are *Mammalium exoticorum . . . descriptiones et icones*, 1835, and *Descriptiones et icones Animalium Rossicorum*, 1836.

About this period the teachings and writings of German zoologists became prominent in the scientific world, and we note a corresponding change in and additions to theoretical classifications that, in the main, were built upon histological research in which the microscope played the most outstanding role. Agassiz in his *Essays on Classification* (1859) gives a fair account of these publications.

The name of that brilliant genius Johannes Müller (1801–58) often recurs in these pages. He was probably the greatest investigator of the internal structure of animals, and one associates his name with that of his predecessor Rathke (1793–1860) and of Meckel (1781–1833). Of Müller's numerous and important memoirs that on *Amphioxus*, Berlin, 1844, may be cited as a model of accurate and complete scientific observation and illustration.

Somewhat later (1857) J. H. Blasius published his *Säugethiere*, an octavo of 550 pages, as part of a general zoology of Middle Europe.

Among other writers of this period was the Army Surgeon, J. V. Thompson, whose papers on marine invertebrates are in a class by themselves. With him may be mentioned, as students of Oceanic fauna, the senior Van Beneden, Claparède, Dalyell, Sars, and Allman.

There follows, during this period, a long array of important investigators and writers at least three of which are distinguished as the inventors of classification systems well known to students of zoology. These are Henri Milne-Edwards (1800–84) (see, in particular, his *Recherches anatomiques*, 1845–9, and his *Anatomie comparée*, 1857–81); Rudolph Leuckart (1823–98); and Thos. Huxley (1825–95), whose monographs dealing with their particular systems are listed in this Catalogue. Of these three classifications that of Huxley has influenced most the changing nomenclature of our present-day systems. He it was who insisted that a rational classifying of fauna should comprise with meticulous accuracy the whole structure, microscopic as well as gross, of all animal forms, including not only their adult structures but their development *ab ovo* to maturity.

Thomas Huxley was the son of a poor schoolmaster. Born in London he became one of the most famous biologists of his day. He served as surgeon in the English Navy and while in Australian waters examined the animal life so abundant in that quarter of the world. He afterwards taught comparative anatomy as part of his duties when appointed professor at the British School of Mines, whence he wrote several textbooks and conducted lecture courses that added greatly to his fame. Perhaps he will always be best known, in a literary sense, by his classic *Evidence of Man's Place in Nature*, 1863.

John Kirke Townsend (1809–51) wrote a famous *Narrative of a Journey across the Rocky*

Mountains, &c., 4to, Phila., 1839, in an appendix to which is a list of the quadrupeds and birds found in the territory of the Oregon. There, also, notes on the fauna of the Sandwich Islands, Chile, &c., are catalogued. A London edition illustrated, in 2 volumes, was issued with a title somewhat different in 1840. Both works are rare and important. In 1849 appeared the first and only part (pp. 12, pl. 4, Phila.) of his *Ornithology of the United States*—very rare.

Physiology based on structure, or *anatomical physiology*, really had a beginning—albeit vague and cloudy—in the writings of the ancient zoologists, and we discern it in the works of Aristotle and Galen. The subject actually belongs in the domain of *medicine*, for the study of which the reader is referred to the *Bibliotheca Osleriana*. In this catalogue the student of comparative physiology will find at first hand the titles of all the essential literature on this important subject from the earliest to the latest times.

As the Compiler has several times remarked, the discovery of the clinical microscope and other modern methods of research made possible not only accurate descriptions of minute organisms but the scientific observation of cell-structure in animals; and be it again stated—Anton von Leeuwenhoek (1632–1723) and Marcello Malpighi (1628–94) were the first to make an extensive use of the microscope for these purposes.

While on the subject of *vertebrate morphology* one must not forget in this connection the works of Friedrich Joseph Schelver (1778–1832) who published several related treatises on insects and worms; of Gotthilf Heinrich von Schubert (1780–1860), a rather vague and speculative naturalist; Carl Friedrich Burdach (1776–1846) who wrote on the habits of animals; Carl Gustav Carus (1789–1869) whose *Lehrbuch der Vergleichenden Zootomie*, 1834, has passed through several editions and has been translated into English and French; the morphological studies of that versatile genius Goethe; and Carl Friedrich Kielmeyer (1765–1844), another comparative anatomist, to whom Humboldt dedicated his *Zoological Researches*.

Another morphologist of some note is Gotthelf Fischer (1771–1853), whose works had a wide range from fishes to geology and paleontology. About this time also appeared the papers of Dallinger on comparative morphology and, following him, F. Tiedemann (1781–1860) made many and varied contributions to the same study. L. H. Bojanus (1776–1827) must not be passed over, as adding embryology to his other comparative studies; nor should J. F. Meckel (2nd), member of an illustrious family of medico-naturalists, be forgotten, because of his devotion to the study and teaching of comparative anatomy. He worked under Cuvier and eventually became a famous professor in Halle, where he edited his well-known *Archiv*. C. Asmund Rudolphi (1771–1832), a teacher of Johannes Müller, was another comparative anatomist of note.

Biochemistry (with its attendant literature), an important department of zoology much studied in recent times, had its inception in the cell-theory and other works of Theodor Schwann (1810–81).

Bionomics, about which Charles Darwin was the first serious writer, had a forerunner in Count Georges L. L. de Buffon, whose extensive writings are largely devoted to the habits of animals and their relations to their immediate surroundings rather than to questions of structure alone. Of all the writers before and since Darwin's time Buffon stands pre-eminent as a student of what we now know as bionomics.

It was during this period that the vertebrate zoology of insular and continental India was studied by a large group of British naturalists who reported upon it in special journals, serials, and monographs. These well-known names all appear in the Catalogue, among them Horsfield and John McClelland.

About this time a French traveler, Charles Bélanger, published his *Voyage aux Indes-Orientales*, 1834, with a folio atlas, that deals in part with the zoology of Java, Mauritius,

and portions of India. We are indebted to Capt. Hugh Falconer (1808–65) for numerous brochures on the fossil fauna of the Far East (and other localities), especially his *Fauna Antiqua Sivalensis*, &c., and *Illustrations*, 1846–9, London, that treat extensively, with Sir P. T. Cautley, the paleontology of North India.

Another explorer of the Far East was Philipp Franz von Siebold (1796–1866), who is not to be confused with an equally distinguished naturalist, Carl Theodor Siebold (1804–85), or with his father Christof, professor in Würzburg. His chief work on the animals of Japan is entitled *Fauna Japonica*, &c., Lugd. Bat., 1833–50, a 6-vol. folio in which C. J. Temminck and H. Schlegel collaborated for descriptions of the vertebrata.

Madagascar has always been a favorite island for the voyaging faunist. One of the early nineteenth-century reports on its animal life is furnished by Julien F. Desjardins (1799–1840) who, among other contributions, wrote a *Rapport Annuel sur . . . l'histoire naturelle de l'Île Maurice*, 8vo, 1835–6. Shortly before, J. B. Bory de Saint-Vincent (1780–1846) visited the island and described the Mauritian and neighboring fauna in his *Voyage dans les quatre principales îles des mers d'Afrique*, 1803, 3 vols., 8vo.

Martin H. C. Lichtenstein (1780–1857), born in Hamburg, while serving as a doctor in the Dutch service spent most of three years in South Africa and contributed to our knowledge of its zoological life. He became better known as professor of zoology in Berlin, in charge of the University Museum. So far as concerns his work in South Africa it is largely dealt with in his *Reisen im südlichen Africa*, 2 parts, Berlin, 1811–12.

Reference has already been made to the life and writings of Sir Andrew Smith (1797–1872) to whom the world of natural science is greatly indebted for his faunal literature relating to South Africa. His chief monograph is *Illustrations of the Zoology of South Africa*, 5 vols., 1838–50.

Much later, with the same end in view, is W. L. Distant's *Naturalist in the Transvaal* (1892) in which the mammalia, aves, reptilia, and batrachia of South Africa are systematically described by competent specialists.

An expedition to the Congo, during which some attention was paid to the fauna of the regions visited, was made by James Kingston Tuckey (1776–1816). In his *Narrative of an Expedition to explore the River Zaire*, 4to, London, 13 pl., 1818, J. Cranch gives 'A general notice of the Animals'.

Hugh Clapperton (1788–1827) made several incursions into the wilds of Central Africa, accounts of which (with a description of the animals seen and secured) were given by him and his associates in two-volume works. With D. Denham he published, 1826, two editions, *Narrative of Travels . . . in northern and central Africa, 1822–4.*

Among the more important contributions to nineteenth-century literature of vertebrate zoology of Africa and neighboring regions are those of Wilhelm C. H. Peters (1815–83) the successor in Berlin of Lichtenstein. His *Naturwissenschaftliche Reise nach Mossambique*, &c., 4to, Berlin, 1852–82, in which the fauna is elaborately catalogued is, perhaps, his best work. In conjunction with Carl C. von der Decken (1833–65) he described the mammalia of that naturalist's well-known *Reisen in Ost-Afrika in 1859–61*, 4 vols. This fine work also includes a history of the fauna of the African coastal regions—Zanzibar, Mozambique, &c.

The faunal discoveries, many of new species, by Carlo Fornasini in Mozambique were examined and described by Giovanni G. Bianconi (1809–78) under the caption *Specimina Zoologica Mosambicana*, &c., Bonon., 1850–70.

After their return from the famous military-scientific expedition into Egypt, made under the first Napoleon and (as previously mentioned) described in the monumental *Description de l'Égypte, Histoire Naturelle*, 4 superfolio vols., a group of naturalists that included the zoologists E. Geoffroy Saint-Hilaire, M. J. C. L.

Savigny, Friedrich W. Hemprich (1796–1825), and Christian G. Ehrenberg (1795–1876) either continued and extended their studies of Egyptian animal life or turned their attention to the fauna of neighboring regions, especially the African. A second edition, much inferior to the first, was issued by the Bourbons. This was the origin of the well-known *Symbolae Physicae seu Icones* &c. *Pars zoologica*, Berol., 1828–45, that Ehrenberg and Hemprich (assisted by others) brought out in 4 vols., with numerous colored plates, in which the fauna of northern Africa, Arabia, Syria, &c. are fully described and depicted.

Another prominent zoologist who is widely known for his studies of African fauna was Wilhelm P. E. S. Rüppell (1794–1884), whose *Atlas zu der Reise im nördlichen Afrika*, folio, 1826–8, has the first part devoted to the zoology of the expedition. The author also published monographs on the birds and mammals of Abyssinia and other African countries; in fact he is among those numerous writers whose works must be studied by all serious students of African biology.

Another naturalist who traveled much in the countries bordering on the Mediterranean and recorded his discoveries and observations on the animal life of the East was Joseph von Russegger (1802–63). With the aid of J. J. Heckel and other systematists he published his *Reisen in Europa, Asien und Africa . . . in den Jahren 1835 bis 1841*, &c., 4 vols., Stuttgart, 1841–8. The natural history portion of this useful work has been reprinted under the editorial management of E. Fenzl and others.

Although he should rank among the most celebrated of ichthyologists in general P. Bleeker is best known for his magnificent treatise, the nine-volume folio *Atlas ichthyologique des Indes Orientales Néerlandaises*, 1862–72, a famous work published at Amsterdam, and illustrated by 420 folio colored plates.

Abyssinia was the chief objective of a scientific expedition under C. Théophile Lefèbvre (1811–60) reported upon under the title *Voyage en Abyssinie*. This work, in 9 volumes, Paris, was published in 1845–51, and illustrated with over 200 plates.

Among the better known faunists who wrote much about the animals of Africa was the naturalist Martin T. von Heuglin (1824–76). His travels and discoveries are described in several publications, at least two ornithological, and in numerous contributions to serials and periodicals. A number of these will be found—as is the case with quite a few of the foregoing titles—in this Catalogue. Here the Compiler will mention only this writer's *Ornithologie Nordost-Afrikas*, &c., Cassel, 1869–73, a classic work on this subject.

As a result of his travels in northern Africa, Moritz F. Wagner (1813–87) published *Reisen in der Regentschaft Algier, 1836–8*, 3 vols., Leipzig, with an Atlas, in which the fauna is, among other subjects, systematically described and figured. Subsequently the French government organized a scientific survey of the same territory and published *Exploration scientifique de l'Algérie pendant les années 1840–42*. This report was published in Paris, 1846–60, the birds and mammals being described by Levaillant, the fishes and reptiles by A. Guichenot.

Finally, and as a supplement to this all-too-brief account of the early explorers who wrote on African zoology, the reader is referred to W. L. Sclater's excellent article, 'Early Sources of our Knowledge of African Ornithology' (*Jour. für Ornithologie*, Bd. 2, 1929).

The Canary Islands and their faunal life to some extent depicted by Alexander Humboldt, were more fully described by P. B. Webb and S. Berthelot in their *Histoire naturelle des Îles Canaries*, 1835–44, in 3 vols., and an Atlas of 438 plates. This rather rare and extensive work was issued in 108 parts, the ornithology being detailed mostly by the principal editors (and M. A. Moquin-Tandon), the reptiles by M. P. Gervaise, and the ichthyology by M. A. Valenciennes. That indefatigable explorer and naturalist, Baron J. B. Bory de Saint-Vincent, has given us, also, an earlier report entitled *Essais . . . ou précis de l'histoire générale de l'archipel des Canaries*, Paris, 1803.

The Madeira group has been fairly well explored and its fauna listed during the nineteenth century. One of the best histories is that of Richard T. Lowe (1802–74), who wrote *Primitiae Faunae . . . Maderae et Portus Sancti*, &c., Cambridge, 1831, also another edition with appendix in 1851, as well as a *History of the Fishes of Madeira*, 8vo, London, 1843–60, with 17 colored plates.

Several references have been made in this Introduction to the life and works of that celebrated Smithsonian, Robert Ridgway (1850–1929). Although his most enduring work is the monumental *Birds of North and Middle America*, 8 vols. (1901–27), unfinished at the time of his death, the Catalogue annexed to this Introduction credits him with a notable *Color Standard* (two editions) for zoological descriptions; *A Manual of North American Birds* (1st edition, 1887); the *Ornithology of Illinois*, 1887; as one of the editors with Brewer and Baird of their fine treatise (already mentioned), and of numerous other contributions to the various Smithsonian publications.

The avian literature of the Hawaiian Islands may here be noticed once more. It is in part represented by the well illustrated works of Lord Rothschild's *Avifauna of Laysan*, 1893–1900; the monographs of Evans and Wilson, *Aves Hawaiienses*, 1890–9; the small, popular handbook of H. Henshaw, *Birds of the Hawaiian Islands*, 1902, and a useful *Key to the Birds of the Hawaiian Group*, 1901, the work of W. A. Bryan.

The Spanish Mainland has been the subject of many treatises, the most popular of which is probably Waterton's *Wanderings*, that has been many times reprinted since the first edition of 1825. Next in order of importance is Richard Schomburgk's *Reisen in Britisch-Guiana* (1848) which has recently been translated from the Dutch and German editions by the Compiler's friend, Dr. Walter Roth, Curator of the British Guiana Museum in Georgetown, B.G. The original MS. of that translation is now in the E.S.W. Library.

Léotaud's *Oiseaux de l'île de la Trinidad* and Gosse's *Birds of Jamaica* (1847) are examples of early local works on the avifauna of the West Indian islands. The latter is a charming work. The Blacker Library is fortunate in possessing the original drawings from which Gosse's (subsequent) *Illustrations* (1849), a sort of atlas to the text, were produced—delightful, illustrative, colored drawings. The small folio of text has itself become exceedingly rare.

Charles Cory's name is indelibly associated with the faunal literature of the West Indies, beginning with his *Birds of the Bahama Islands* (1880) which had two printings, the last in 1890. The reader is referred to the Catalogue list for the complete roster of Dr. Cory's excellent monographs.

Cuba, Porto Rico, and Haiti also claim a large number of authors—Lembeye, Poey, and Gundlach among the early writers, Wetmore among the recent contributors.

Although Baron de la Hontan published a catalogue of the Canadian animals—birds in particular—in his *Voyages* (1793) and description, and while figures of British American fauna form part of several noted treatises on North American zoology, yet Canada has not received the special attention that the importance and variety of her faunal species demand.

The adjective *Canadensis* has been rather overworked in systematic biology for many a long year, and the Dominion has not been neglected by zoological writers as part of North America, but local treatises are few. However, Thos. Nuttall's (1786–1859) *Manual* in two volumes (1832–4) and one volume in 1840; McIlwraith's *Birds of Ontario* (1894); Taverner's *Birds of Eastern Canada* (1919); Ross's *Birds of Canada* (1871); Chamberlain's *Catalogue of Canadian Birds* (1887), may be mentioned at this juncture.

In addition to the various editions of his *Check List of North American Birds* (1st ed., 1882) and of the famous *Key to North American Birds* (1872 *ed. prin.*), Elliott Coues was responsible for many works that did not bear his name as part of their major titles, among them

Stearns' *New England Bird Life* in 2 volumes, 1881–3.

Another and still more popular treatise is *North American Birds* (1874–84) by that versatile and accomplished trinity, Baird, Brewer, and Ridgway. This work was followed in 1887 by a second edition, and in 1896 appeared a *Manual of North American Birds* by the last-named author.

In 1892 was published Major Bendire's classic and finely illustrated *Life Histories of North American Birds.*

The Compiler is well aware that there exist in the literature of the nineteenth and early twentieth centuries many well-known, finely illustrated and important treatises devoted to individual vertebrate orders, families, genera, and species. Perhaps the forty volumes of Jardine's encyclopedic *Natural History* furnish the best collection of this class. However, the present Introduction cannot, owing mainly to lack of space and to a desire to avoid needless repetition of titles, do more than mention a few of these monographs, some of which have already been quoted in this section. These titles with many others listed in the Student's Index and the Catalogue comprise such works as Sclater's *Curassows*; Bent's *Life Histories of North American Birds*; Eyton's *Anatidae*, 1838; Hervieux's *Canaries*, 1730; Knip's *Pigeons*, 1808; Beebe's *Pheasants*; Finsch's *Papageien*, 1867–8; Lear's *Parrots*, 1832; Gould's many monographs, e.g. his *Toucans*, 1834; Kirke Swann's *Accipitres*, 1923– ; Brehm's *Papageien*, 1842; Phillips' *Ducks*, 1922–30; Miller's *Bats*, 1907; Forbes' *Primates*, 1894; Blaauw's *Cranes*, 1897; Alferakī's *Geese*, 1905; D. G. Elliot's *Grouse*, 1864; H. Allen's *Bats of North America*, 1864; Elliot's *Felidae*, 1883; E. Blyth's *Cranes*, 1881; Dewhurst's *Cetacea*, 1834; Sclater and Smit's *Antelopes*, 1894–1900; Greene's *Parrots*, 1887; Eudes-Deslongchamps' *Trochilidés*, 1881; Thos. Beale's *Sperm Whale*, 1839; Seth-Smith's *Parrakeets*, 1902–3; Dresser's *Meropidae*, 1884; St. George Mivart's *Cat*, 1881; Widegren's *Sveriges Salmonider*, 1862; E. Coues *Mustelidae*, 1877; M. C. Engell's *Elefantens udbred. i Afrika*, 1899; Lord Tavistock's popular work on *Parrakeets*, 1929; Fayrer's *Snakes of India*, 1874; Gould's *Kangaroos*, 1841; Lydekker's *Cervidae*, 1898; Herbert Friedmann's *Cowbirds*, 1929; Jardine's *Felidae*, 1845; Jardine's *British Salmonidae* (1839); Russ's *Brieftaube*, 1877; Lydekker's *Ruminants*, 1898; Roosevelt's *Deer Family*, 1902; Beddard's *Whales*, 1900; Dugmore's *Newfoundland Caribou*, 1913. Finally, R. Lydekker's *Handbook to the Marsupialia and Monotremata*, 1894, and most of that versatile author's numerous other monographs will be found listed in the present Catalogue as good examples of original and valuable contributions to systematic zoology.

The articles on *paleontology* contributed by Sir Richard Owen to the eighth edition of the *Encyclopaedia Britannica*, though now out of date, are among the best of the earlier essays on the geologic relations of extinct animals. These essays were followed (1877) by *Researches on the Extinct Mammals of Australia* and (1879) and a *Memoir on the Extinct Wingless Birds of New Zealand and elsewhere*, illustrated by an atlas with 128 plates.

The paleontologic works of various members of the Woodward family should be familiar to the research student. These monographs are many of them listed and evaluated in the present Catalogue.

Among the dictionaries and cyclopedias of natural history listed in the appended Catalogue is the immense *Encyclopédie Méthodique* (1782–1832), 196 volumes, several of which are devoted to vertebrate zoology, most of it contributed by L. J. M. Daubenton, A. G. Desmarest, and the Abbé Bonnaterre.

An excellent combination of the systematic and popular appeared in the manuals of the naturalist P. H. Gosse, whose *Mammalia* (1848); *Birds* (1849); *Reptiles* (1850), and *Fishes* (1851) are well worth perusal.

CHAPTER XI

I. *SOME IMPORTANT TREATISES AND MONOGRAPHS ON ORNITHOLOGY AND MAMMALOGY PUBLISHED DURING THE NINETEENTH AND TWENTIETH CENTURIES.*

***A few Forerunners of Modern Zoological Literature*: Merrett—Plot—Pennant—Berkenhout—Tunstall—Swainson—J. Fleming—L. Jenyns—Thos. Bell—John Church—Flower and Lydekker—Max Weber—W. K. Gregory—H. F. Osborn—W. F. Kirby—John Latham—Vieillot—R. Gray—*Local British Faunists*: Harvie-Brown and Buckley—Sterland—Muirhead—Tucker—Knox—Harting—J. Atkinson—A. G. Butler—Eagle Clarke—A. Lefèbvre—*Local Continental Zoologists*: Rzaczynski—Grossinger—J. L. Frisch—J. D. Peterson—J. B. Fischer—Beseke—Bechstein—J. A. Naumann—Borkhausen—Pilati—Cetti—Nozeman—Houttuyn—Linnaeus—Brunnich—Gunnerus. *France*: Chenu—A. G. Desmarest—Temminck—Brehm—Blasius—*Great Britain*: J. Walcott—Lord—Donovan—Bolton—Bewick—Gilbert White—G. R. Gray—*America*: Pennant—Barton—J. R. Forster—Bartram—Wm. Yarrell—J. G. Wood—J. Duncan.**

AS previously pointed out, the literature of Mammalogy is next to that of Ornithology the most extensive of the publications devoted to vertebrate zoology. The more important treatises, taken at random and covering some of the many subdivisions of the subject, are recorded here. Several of these titles are also referred to elsewhere in this Introduction, while the great majority of *all* independent mammalian titles will be found (partially annotated) in the appended Catalogue.

The chief contributions to Ichthyology, Herpetology, and Amphibian life are mentioned in the special chapters devoted to those subjects.

Every civilized country possesses a *local literature* on its zoological inhabitants, some of it extremely voluminous. Elsewhere the Compiler has listed a considerable number of these monographs, especially British and American, quite a few elaborately illustrated and describing minutely the animal life of limited areas. A brief account of a few of such local faunists is desirable in a work of this kind, more extended treatises being given greater prominence.

The government publications (reports, books, &c.) of Great Britain and Ireland issued by the various departments, offices, surveys, and numerous commissions of the Empire, now and then contain or are chiefly concerned, directly or indirectly, with vertebrate zoology. This is especially true of game and of fishes as food. The McGill libraries have a full complement of these works, and the Compiler refers the student also to the Cat. British Mus. (Nat. History) under the caption *Great Britain and Ireland* for a list of them. In the present Introduction only the most important can be noticed.

As a prelude to the mention of modern publications on Aves and Mammalia a few forerunners of nineteenth- and twentieth-century literature may first of all be noted.

Merrett's *Pinex* contains the earliest list (1666) of British birds, while Plot's *Natural History of Oxfordshire* (1677) was the first of a long line of local 'faunographs' hardly one of which fails to contribute something new to the zoology of the county or counties described.

Berkenhout published a *Natural History of Great Britain and Ireland* in 1769, after which, in time and interest, came Tunstall's (and

Fothergill's) *Ornithologia Britannica*, folio, 1771.

Thomas Pennant was born at Downing, Flintshire, June 14, 1726. In 1744 he went to Oxford but left without taking a degree. Between 1754 and 1774 he traveled extensively on the Continent and over the British Isles. From boyhood he had been greatly interested in natural history, was a friend and correspondent of Linnaeus, and wrote extensively on zoologic subjects. He died December 16, 1798.

The most celebrated of this writer's works, *British Zoology*, folio, 1766, was first published anonymously by the Cymmrodorion Society, followed in 1768–70 by a second and more complete 8vo edition in 4 volumes, illustrated by plates.

In 1771 there appeared at Chester the first edition of his *Synopsis of Quadrupeds* which, like the preceding treatise, had several subsequent and amended editions and was translated into German. Later, accounts of the natural history of his voyages to Scotland, Wales, and elsewhere, appeared in print, preceded by his well-known *Genera of Birds*, Edinburgh, 8vo, 1773; 2nd ed., London, 1781. Of considerable interest to Americans are the two editions of his *Arctic Zoology*, the first one appearing in London, 2 vols., 1784–5, and a supplementary volume in 1787. A good review of the life and works of this important naturalist is that of Sir W. Jardine—a *Memoir of Pennant*—in the former's *Humming Birds*, Pt. II, 1833.

A valuable systematic monograph is W. Swainson's *Treatise on the geography and classification of Animals*, 1835.

Another observer of lesser rank than Pennant was John Fleming, who, however, wrote a fairly good *Philosophy of Zoology*, in two vols., Edin., 1822, giving his favorite classification of animals, followed by *A History of British Animals*, &c., 1828, reprinted in 1842. In 1835 Leonard Jenyns (afterwards Blomefield) brought out a *Manual* (followed by a *Catalogue*) *of British Vertebrate Animals*. This writer is, however, better known for his contributions to the ichthyology of the 'Beagle' expedition. Edward Forbes (1815–54) although a specialist in mollusca contributed many important papers on biology in general, mostly in conjunction with other writers. A versatile author (editor of the *Zoological Journal*) was Thomas Bell (1792–1880). Among his numerous contributions to vertebrate literature of the British Isles is his *History of British Quadrupeds*, &c., 8vo, London, 1837, 2nd ed., 1874, and a *History of British Reptiles*, &c., London, 1839, 2nd ed., 1849.

Among the curios of early British mammalogic literature is John Church's *Cabinet of Quadrupeds*, 1794–1805, 2 folio vols., well illustrated with drawings by J. Ibbetson.

Although not a very recent publication, the *Introduction to the Study of Mammals*, 1891, by Flower and Lydekker, is of great value to the student; and the same may be said of *Die Säugethiere*, 1904, of Max Weber. Another instructive treatise is W. K. Gregory's *Orders of Mammals*, one of the *Bulletins*, vol. xxvii, 1910, issued by the American Mus. Nat. History, New York. Of the many works on vertebrate paleontology, H. F. Osborn's *Age of Mammals*, 1910, is to be recommended.

A brief but systematic study of the general subject is W. F. Kirby's *Mammals of the World*, London, 1907.

Reference has several times been made to John Latham (1740–1837). His *General Synopsis of Birds* and their supplements, 1781–1802; his *General History*, 1821–8, with several editions (English and German); and his systematic treatise, or *Index Ornithologicus* (1790), are well known to instructed ornithologists, and form an essential part of all good libraries.

Mention has been made in this Introduction to the valuable contributions to ornithology of L. J. P. Vieillot (1748–1831). Among these is an Americana of considerable importance, his *Histoire Naturelle des Oiseaux de l'Amérique septentrionale*, in 2 vols., Paris, 1807.

Probably no fauna of the palaearctic region has been so thoroughly described in monographic literature as the aves of Great Britain and Ireland. Newton (*Dictionary*, pp. 44–5)

notices, for North Britain, Robert Gray's *Birds of the West of Scotland* (1871), and the series of district *Vertebrate Fauna*, begun by Harvie-Brown and T. E. Buckley, of which seven volumes have now appeared, treating of (1) Sutherland, Caithness, and West Cromarty; (2) Outer Hebrides; (3) Argyll and Inner Hebrides; (4) Iona and Mull (this by Graham); (5) Orkney, and (6 and 7) Moray, as well as Dee and Shetland; also Muirhead's *Birds of Berwickshire* (2 vols., 1889–96).

Another typical local history is Sterland's *Birds of Sherwood Forest*, 1869. Other local works on English birds are still more numerous, among them the oldest of all, Tucker's unfinished *Ornithologia Danmoniensis* (4to, 1809), an ambitious work of which not even the whole of the extensive Introduction was published. At intervals followed Dillwyn's *Fauna and Flora of Swansea* (1848); Knox's *Ornithological Rambles in Sussex* (1849), and Harting's *Birds of Middlesex* (1866).

A rather good compend of British ornithology was published by John Atkinson in 1820, based largely on the anatomy and physiology of birds.

Based chiefly on a study of British birds, W. Eagle Clark wrote a useful work (2 vols., 1912) on the subject of avian migration.

Another treatise, published 1896–8, is an extensive monograph on the öology and nidology of the British Isles—A. G. Butler's *British Birds with their Nests and Eggs*—in six volumes, of which the author collaborated with H. O. Forbes, W. B. Tegetmeier, and other well-known writers. Related to this work is A. Lefèbvre's *Atlas of the Eggs of the Birds of Europe*, 1844; also a French edition in 1848.

'Local faunists'—as Newton calls them—from the seventeenth century onwards present a difficulty for one who essays a brief history of zoological literature in all countries, since their name is legion, and it is possible to list by name only a few of them. In this place it may be mentioned that in 1721 Rzaczynski brought out his *Historia naturalis . . . Poloniae*; Grossinger, in 1793, his *Historia avium Hungariae*. In 1743–63 J. L. Frisch published the splendid *Vorstellung der Vögel Deutschlandes*, admirably illustrated by colored plates. Later, J. D. Peterson wrote his rare *Verzeichnnis baltischer Vögel*, and in 1791 appeared J. B. Fischer's . . . *Naturgeschichte von Livland*, followed by Beseke's *Beytrag zur Naturgeschichte der Vögel Kurlands*. Still later were published Bechstein's well-known descriptions of German and other mid-European birds followed by—most complete of all—the voluminous and remarkably illustrated monograph of J. A. Naumann on Central European ornithology, with its many supplements and a recent fine, enlarged edition. Worthy of mention but overshadowed by the beauty and fullness of the Naumann productions are the local publications of Borkhausen (1800–41) and several others of minor importance.

During this period appeared also many treatises by other local naturalists, among them (for Italy) Pilati, Gilius, Bernini, and Cetti; (Holland) Nozeman and Houttuyn; (Scandinavia) Linnaeus' *Fauna Svecica*; Brunnich's *Ornithologia borealis*, and the writings of Gunnerus and Otto Fabricius, most of whose annotated titles will be found in the present Catalogue.

In France there appeared (1850–80) Chenu's valuable *Encyclopédie d'Histoire Naturelle* in the preparation of which Desmarest, des Murs, and other well-known writers participated.

Here also may be noted the work (8 vols. and 4 vols. atlas) of L. P. J. Vieillot's *Faune Française*, 1820–30, of which the birds were described by the author, mammals and reptiles by A. G. Desmarest, and the fishes by H. M. D. de Blainville.

An early and very useful work of reference dealing with European avifauna is Temminck's *Manuel d'Ornithologie*, published in 1815 and 1820.

Of the comparatively early works on the *Birds of Europe*, the treatise of John Gould (1832–7) was sumptuously illustrated by his usual profusion of finely executed hand-colored plates.

In 1831 Brehm issued his *Naturgeschichte der Vögel Deutschlands*, really a handbook of the birds of North and Middle Europe. However, the most complete treatise on Middle European bird-life is an enlarged edition, published in 1860 and edited by Blasius, of Naumann's original *Naturgeschichte der Vögel Deutschlands*, 1797–1803.

About 1789 appeared John Walcott's *Synopsis of British Birds*; Wm. Lewin's (superior) *Birds of Great Britain* in 7 volumes; Lord's (inferior) *System of Ornithology*; and Donovan's voluminous Histories of Animal Life in the British Isles, followed by Bolton's very popular *Harmonia Ruralis*.

Bewick's *Histories* are better known for their remarkable woodcut illustrations than for the scientific value of the text. Most of this last-named naturalist's titles will be found in the present Catalogue.

Thomas Bewick was born at Ovingham, Northumberland, in 1753, the son of a farmer. He early evinced a love of nature and of drawing. When fourteen years of age he was apprenticed to the Newcastle engraver Beilby, whose partner he subsequently became. From 1779 onwards he produced woodcuts as illustrations for many books, his figures and tail-pieces showing an immense advance over previous examples of wood engraving. He died in 1828, having acquired a reputation as the most effective, accurate, and spirited wood engraver of his day.

While these pretentious and in many instances truly valuable contributions to scientific zoology were being published in Great Britain a small volume by an obscure clergyman named Gilbert White appeared, with the title *The Natural History of Selborne*, from the little village in which he lived. It consists mostly of letters to scientific friends and, as Newton says, 'the graceful simplicity of its style, the elevating tone of its spirit, and the few errors of fact or opinion it contains' recommend it alike to all classes of readers. The first issue was in 1789, and since that date there have been published more editions and imitations of this fascinating book than of any other work on natural history in the wide world. There are few zoologists that have not fallen under the charming influence of its delightful pages. About forty of the chief printings, including the first, are listed in the present Catalogue.

In 1817 John Walcott issued his 3-volume *Exotic Animals*, comprising descriptions of the Linnaean classes of Fishes and Amphibia and illustrated by 60 plates.

In the meantime the faunal literature of North America was not neglected. Pennant's *Arctic Zoology*, Barton's *Fragments*, J. R. Forster's *Catalogue*, and Bartram's *Travels* furnish a fair and early account of animal life then known to exist in the northern latitudes of the New World.

As elsewhere mentioned, öology is not made a special study in this Introduction, but we must not fail to report favorably on Wolley's *Otheca Wolleyana*, issued in 1864 and 1902.

A voluminous as well as scientific and popular writer on British zoology is Wm. Yarrell (1784–1856). His chief treatises are a *History of British Fishes*; also *A History of British Birds*, 3 vols., ill., 8vo., London, 1837–43, that appeared in four editions, the last one in four volumes, revised and enlarged by Alfred Newton and H. Saunders. 1871–85. These two works form an important part of English zoological literature.

Popular forms of literature on vertebrate zoology have their uses, and although the Compiler does not intend to evaluate many of them a few will be mentioned. Among the writers of such books is the Rev. John G. Wood (1827–99), whose *Illustrated Natural History* (1851) and *Feathered Friends*, 1856, each in several editions, have been widely read.

A semi-popular work is John Duncan's *Birds of the British Isles*, 1898.

Another 'local faunist' is W. P. Turnbull, whose *Birds of East Pennsylvania and New Jersey* was privately printed and published (1869) at Glasgow. His other ornithological works (q.v.) were issued in America.

Another and valuable monograph on local avifauna is A. H. Howell's *Birds of Arkansas*, issued in 1911.

Still another local work is E. H. Eaton's *Birds of New York*, 2 vols., the first part of which appeared in 1910.

A very readable account of the natural history of Canada is given by W. R. King in his *Sportsman*, &c., 1866.

In 1906 A. P. Low reported an *Expedition to Hudson Bay and the Arctic Islands*.

Attention may here be drawn to the recent, revised and partly rewritten edition of Frank M. Chapman's excellent *Handbook of the Birds of Eastern North America*, 1927.

H. Kirke Swann contributed (1895) brief but interesting observations of the fauna of Nova Scotia in his *Nature in Acadie*.

Returning to the vertebrate-zoological literature of the Old World, a comprehensive study of the fauna of the Netherlands is H. Schlegel's *Natuurlijke historie van Nederland* (1860–78) in 6 volumes, illustrated by numerous colored plates, depicting and describing not only the mammalia but the birds, fishes, and reptiles.

Of considerable value to the advanced student is J. Herman Albarda's list of Holland birds in his *Aves Neerlandicae*, 1897.

An interesting, popular work on the *Flora and Fauna of Palestine* was published by H. C. Hart in 1891.

An account, largely ornithologic, was given of Asiatic fauna by Pallas (1811, St. Petersburg), in his *Zoographica Rosso-Asiatica*.

J. Gould and B. Sharpe published beautifully illustrated volumes (London, 1888) on the *Birds of Asia*, preceded (in 1831) by a *Century of Birds from the Himalayan Mountains*, written by the former zoologist.

Count Salvadori described many Oceanic and South Asian birds in his *Ornitologia della Papuasia*, 1880–91.

The birds of China were largely described by David and Oustalet under the title *Les Oiseaux de la Chine*, Paris, 1877.

Blakiston and Preyer presented their (now rare) work on the *Birds of Japan* in 1882.

In the name of sport Capt. J. H. Baldwin has written a good systematic account of many North Indian and Bengalese vertebrates, especially of the mammals.

In 1901 appeared Seebohm's *Birds of Asia*, in which he reports his practical experiences of the avifauna of that continent.

J. A. Murray's contributions to the literature of Indian zoology are well known, especially his *Vertebrate Zoology of Sind*, Bombay, 1884, and his *Avifauna of British India*, 1887.

Adding to his several contributions to the ornithology of India, Stuart Baker wrote in 1908 his *Indian Ducks* followed in 1913 by *Indian Pigeons and Doves*, London and Bombay.

A useful work, combining systematic treatment of the subject with a popular account, is T. C. Jerdon's *Mammals of India*, especially the second edition, 1874.

In 1913 appeared (London) Dewar's interesting and popular book, *Glimpses of Indian Birds*.

George Reid published in 1890 his *Birds of the Indian N.W. Provinces*.

Bucknil and Chasen's *Birds of the Islands of Singapore*, 31 col. pl., was published in 1927, and is a popular and useful systematic account of the avifauna.

The mammals of Malaysia have been well described by J. L. Bonhote in *Fasciculi Malayenses*, 1903.

H. Schlegel's *Birds of the Dutch East-Indies* (1863), a comprehensive history in three volumes, was published in both French and Dutch.

For Wichmann's classic *Nova Guinea*, 1906, E. D. van Oort wrote an account of the birds, other well-known naturalists treating the other vertebrates collected during the expedition.

One of the most acute of observers of the *Zoology of Java* was, as already mentioned, Thos. Horsfield, the titles of whose works on the subject are to be found in the appended Catalogue.

Of the early works dealing with the vertebrate zoology of Japan the best is P. F. Siebold's *Fauna Japonica*, 6 vols., 1833–50, com-

plete sets of which are quite rare. C. J. Temminck and others assisted in the preparation of this elaborate monograph.

H. Seebohm wrote an important and, at the time, much needed volume on the *Birds of the Japanese Empire* in 1890.

The literature of the *vertebrate zoology of Africa* and the neighboring islands is quite extensive.

In 1884 Milne-Edwards and others brought out at Paris a *Historie naturelle des Oiseaux de Madagascar*, both the birds and mammals of that island having been previously described (1875) by Edwards and Grandidier.

The vertebrate zoology of Sir Andrew Smith's *South Africa* (1849), 5 vols., is very important.

Starke and Sclater published (1900–6) the avian portion of the *Fauna of South Africa*, in four volumes, London—a comprehensive and scientific production.

Also a useful four-volume treatise, well illustrated and semi-popular, is F. W. Fitzsimons' *Natural History of South Africa*, 1919–20, in which the mammals are systematically described.

E. L. Layard's *Birds of South Africa* has deservedly reached several editions, that of 1875–84 having been revised by Bowdler Sharpe.

Captain Shelley's last contribution to the subject was published in 1896–1913, a complete and valuable work entitled *The Birds of Africa*.

An interesting monograph on the mummified fauna of ancient Egypt was issued by the Cairo Museum from the pens of Gaillard and Daressy, 1905.

In 1901 H. E. Harris published a series of photographs and essays on *Some Birds of the Canary Islands and South Africa*, illustrated by 56 plates and numerous cuts in the text.

J. I. S. Whitaker in 1905 wrote a useful, systematic work on the *Birds of Tunisia*.

In 1912 there appeared in London, *Game Birds and Water-Fowl of South Africa*, by Horsburgh.

L. S. Schultze's *Zoologische Ergebnisse* (1908–13) furnishes systematic descriptions of the vertebrates of West and Central South Africa.

A recent and most excellent systematic treatise (though poorly illustrated) on the birds of South Africa is the *Handbook* of G. L. Bates.

CHAPTER XII

II. *SOME IMPORTANT TREATISES AND MONOGRAPHS ON ORNITHOLOGY AND MAMMALOGY PUBLISHED DURING THE NINETEENTH AND TWENTIETH CENTURIES, CONTINUED.*

***More British Local Faunists: Jonathan Couch—Wm. Evans—Wm. Thompson—Cecil Smith—Hancock—Christy—Borrer—Willis Bund—Pidsley—H. A. Macpherson—Whitlock—Kirke Swann—Lord Lilford—H. E. Dresser—D. G. Elliot—Arrigoni degli Oddi—Temminck—Borowski—Wytsam—Schulze—P. L. Sclater—W. L. Sclater—Pechuel-Loesche—von Schreber—F. O. Morris—P. Westell—H. W. Wharton—Wm. Macgillivray—G. R. Waterhouse—S. G. Miller—C. J. Cornish—Bree—A. Lindermayer—Brodrick—H. Schlegel—Gadeau de Kerville—R. B. Sharpe—*Fauna of Africa*: G. E. Shelley—C. Whymper—Barboza du Bocage—C. J. Hartlaub—W. C. Harris—Finsch and Hartlaub—Anderson—Heughlin—Layard—A. Grandidier—W. H. Drummond—G. Révoil—Schilling—R. E. Drake-Brockman—C. V. A. Peel—*American Zoologists*: Alex. Wilson—Audubon—Elliott Coues—Chas. Chubb—Lord Brabourne—Prince Bonaparte—S. F. Baird—Joseph Henry—Crawshay—Taczanowski—Baron Tschudi—Azara—Mikan—A. Pelzeln—G. L. Bates—G. N. Lawrence—Marsh—Richard Harlan—J. H. Studer—C. J. Maynard—T. Jasper—A. E. Verrill—F. Kermode—W. A. Bryan—Jones Family—Geo. Ord—Kumlein—Turner—Belt—Schlater and Hudson—Chas. Cory—Warren—D. G. Elliot—C. H. Eigenmann—C. M. Scammon—A. Pope.**

ATTENTION has several times been directed to the extensive and, in many instances, overlapping histories of local British zoology. Of these, the works of the Couch family on the zoology of Cornwall is a good example. Jonathan Couch (1789–1870) wrote an interesting *Cornish Fauna*, Truro, 1838–44, in which R. Quiller Couch described the zoophytes. The same author extended his observations and, in 1862–5, published a very creditable *History of the Fishes of the British Islands*, 8vo, London. The Blacker Library has several Jonathan Couch manuscripts.

The mammalogy of Scotland, Edinburgh region, is systematically discussed by Wm. Evans in his *Mammalian Fauna*, 1892.

In this list of local treatises may be included William Thompson's (1805–52) *Report on the Fauna of Ireland*, 2 pts., 1841–4, followed by his *Natural History of Ireland*, in 4 vols., 1849–56, which, owing to the premature death of the writer, was completed by others. To these we add Stevenson's *Birds of Norfolk* (3 vols., 1866–90, completed by Southwell); Cecil Smith's *Birds of Somerset* (1869) and of *Guernsey* (1879); Cordeaux's *Birds of the Humber District* (1872); Hancock's *Birds of Northumberland and Durham* (1874); *The Birds of Nottinghamshire* by Sterland and Whitaker (1879); Rodd's *Birds of Cornwall*, edited by Harting (1880); the *Vertebrate Fauna of Yorkshire* (1881), in which the Birds are by W. E. Clarke; Churchill Babington's *Birds of Suffolk* (1884–6); A. C. Smith's *Birds of Wiltshire* (1887); *Birds of Essex* (1890) by Christy; of *Sussex* (1891) by Borrer, and of *Worcestershire* (1891) by Willis Bund. To the foregoing may be added the *Birds of Devonshire* (1891) by Pidsley, and (1892) by D'Urban and Mathew (Suppl. and ed. 2, 1895); *Lakeland* (1892) by H. A. Macpherson; *Lancashire* (ed. 2, 1893) by F. S. Mitchell; *London* (1893) by K. Swann;

Derbyshire (1893) by Whitlock, and finally of *Northamptonshire* (2 vols., 1895) by Lord Lilford.

Of course the *Victoria County Natural History*, recently published, constitutes by far the most complete account of the local flora and fauna of England.

Attention is again directed to H. E. Dresser's *Birds of Europe*, 1902–3, 8 vols., fine, colored plates, as well as to his *Eggs of the Birds of Europe*, 1905–10.

A cosmopolitan writer and versatile systematist, with whom every advanced student of zoology should become acquainted, is Daniel Giraud Elliot, many times quoted in these pages. At this time reference is made especially to his well-known *List of Land and Sea Mammals of North America*, 1901, published by the (Chicago) Field Museum of Natural History, followed by similar monographs on the same fauna in Middle America and the West Indies, 1904. His fine quarto *Review of the Primates*, in 3 ill. vols., was published by the (N.Y.) American Museum of Natural History, 1912–13. Practically all Elliot's works are shelved in the Blacker Library of McGill University.

The Compiler wishes again to draw the attention of the student of vertebrate zoology to the great scientific and educational value of the many *Guides* to the immense collections in the British Museum of Natural History, most of which are listed in the appended Catalogue.

A very good atlas, with excellent descriptive letterpress, of the birds of Europe, has been published in Italian by E. Arrigoni degli Oddi, 1902.

Among well-known European zoologists stands the Hollander, Conraad Jacob Temminck, several times mentioned in this Introduction, who not only wrote many treatises on ornithology but published (alone and with others) several works on mammalogy and vertebrates in general. He issued in 1827–41 his important *Monographies de Mammalogie*, in two volumes, based on an examination of the collections in various European Museums.

Half a century earlier G. H. Borowski wrote and published his *Gemeinnützige Naturgeschichte des Thierreichs*, &c., in five volumes, with colored illustrations, dealing mostly with vertebrates.

An excellent example of specific and generic catalogues is the one recently issued by P. A. G. Wytsam. In this *Genera Avium* (1905 to date) each family is treated by a different writer, who is specially fitted to describe it.

A comprehensive work on general zoology, *Das Tierreich*, was begun in 1896, in the editorial charge of F. E. Schulze, and published in Berlin by the *Deutsche Zoologische Gesellschaft*.

Reference has several times been made to that talented and versatile zoologist, Philip Lutley Sclater (1829–1907), whose contributions to zoologic literature are fully represented in the appended Catalogue. He wrote many monographs, especially on bird families, orders, and species and (mostly in conjunction with others) numerous systematic treatises of great importance. Of his best known works one remembers the *Birds of the Challenger Voyage*, 1880; *Catalogue* of the *Birds in the British Museum*, 1886–91; (with W. H. Hudson) *Argentine Ornithology*, 1888–9, and (with O. Salvin) *Exotic Ornithology*, showing 100 colored plates of American birds. A bibliography of the elder Sclater's writings was published as *Bulletin 49* of the United States National Museum, 1896.

Following in his famous father's footsteps, William Lutley Sclater (1863–), formerly Director of the South African Museum, published as Editor his first large work, the important *Fauna of South Africa*, 1900–6. This treatise was shortly followed by others of equal value to vertebrate zoologists, e.g. *A History of the Birds of Colorado*, 1912, and the *Geography of Mammals* (in conjunction with P. L. Sclater), 1899; all of which are listed in the accompanying Catalogue.

Of recent treatises on vertebrate zoology there is an abundant supply in all the European languages, one of the best being Pechuel-Loesche's (third) edition (1890–3) of A. E. Brehm's *Illustrirtes Thierleben* in ten illustrated

volumes, a work to which attention has already been directed.

An excellent publication of a somewhat earlier period is the abundantly pictured J. C. D. von Schreber's quarto, *Die Säugethiere in Abbildungen . . . mit Beschreibungen* (1815–55) with over 300 colored plates and corresponding letterpress.

Of nineteenth-century writers on British fauna one of the most popular was Francis O. Morris (1810–93). His octavo *History of British Birds* in six volumes (1851–7) was several times reprinted, as was also his *Natural History of the Nests and Eggs of British Birds*, 3 vols., 1853–6.

A popular little work by W. P. Westell on *British Mammals* appeared in (?) 1927 as one of the Abbey Nature Books.

H. T. Wharton (1846–95) drew up a *List of British Birds* (1877), the genera arranged after Sundevall's method, the nomenclature revised by himself.

Several of Jas. E. Harting's numerous contributions to the literature of ornithology have been mentioned. Perhaps his *Handbook of British Birds*, second edition, 1901, was his best, and one should remember his essays on mammalian life, especially his *Extinct British Animals*, 1880. He is also our best modern authority on falconry and has written many books regarding one form of the chase (modern and medieval), that elegant and aristocratic 'sport' of torturing and killing birds by means of birds.

Attention is again drawn to William Macgillivray's labors and writings lest one forgets that while he was a great ornithologist his investigations included the domains of geology, botany, and mammalogy as well. In addition to his classic treatises on *British Birds* (1837–52) and his contributions to the (1831–9) Audubon series (q.v.) he wrote *British Quadrupeds* (1845–6) for the Naturalists' Library.

A little-known treatise is a rather good *Natural History of the Mammalia*, in two illustrated volumes, by G. R. Waterhouse, 1846–8.

Of the many collections of chapters on zoology by different authors, brought together for the information of the lay reader, one may here mention C. J. Cornish's excellent *Living Animals of the World* (1901), of which several editions and translations have appeared.

In 1871 Fritsch wrote and published in Berlin *Die Vögel der paläarktischen Fauna*.

In 1875–6 there also appeared Bree's *History of the Birds of Europe*, London.

Another excellent and recent account of European birds is Hartert's (1903–14) *Die Vögel der Paläarktischen Fauna*, Berlin.

Not many writers have touched the fauna of modern Greece. An exception is Ant. Lindermayer, who wrote in 1860 his *Vögel Greichenlands*.

Highly spoken of is Seebohm's (1883–5) *History of British Birds and their Eggs*.

Of the several modern works on British falconry one may mention at this time Wm. Brodrick's *Falconers' Favourites*, folio, 1865, and, in conjunction with F. H. Salvin, *Falconry in the British Islands*, 2nd ed., 1873.

A second edition of that valuable work, H. Schlegel's *De Vogels van Nederland*, 2 vols., was published in 1878, the first having appeared in 1854–8 as part of a work on Dutch fauna.

A quite complete account of the fauna of (old) Hungary is listed in the appended Catalogue under *Budapest. Fauna Regni Hungariae*, 1900.

In 1888–97 Gadeau de Kerville wrote, in four fascicles, his excellent *Faune de la Normandie*.

The name of that celebrated British naturalist, Richard Bowdler Sharpe (1847–1909), occurs frequently in these pages. His first independent work was a *Monograph of the Alcedinidae: or family of Kingfishers*, 1868–71, with 126 beautifully colored plates by Keulemans. For nearly half a century he occupied a foremost position in the zoological world, publishing chiefly works on ornithology, many of them in conjunction with other writers. His principal treatises are in the McGill libraries and listed in the appended Catalogue.

The *vertebrate zoology of Africa* has been the

subject of many interesting publications, as previously stated in a former chapter of this Introduction.

Among works generally regarded as standard reference treatises are G. E. Shelley's *Handbook to the Birds of Egypt* (1872) and his larger *Birds of Africa*, completed and edited by W. L. Sclater, 1896–1912.

Chas. Whymper also wrote on *Egyptian Birds* (1909), mostly those seen in the Nile Valley.

Barboza du Bocage has furnished an excellent account (1857–82) of the vertebrate zoology of Angola and other Portuguese possessions in Central and West Africa.

One of the excellent (rather early) works on African birds is C. J. G. Hartlaub's *System der Ornithologie West-Afrikas*, Bremen, 1857. Elsewhere allusion was made to this author's study of Madagascar fauna and other essays on African bird life, all listed in the Catalogue herewith. A still earlier work (1840) on *Game and Wild Animals of Southern Africa*, with 40 colored plates, was issued by W. C. Harris.

In 1870 (Leipzig) appeared Finsch and Hartlaub's *Vögel Ostafrikas*, a companion to the latter's 1857 treatise on West African avifauna.

Anderson published (London, 1872) his *Notes on the Birds of Damaraland*.

During 1875 there appeared at Cassel Heughlin's *Ornithologie Nordostafrikas*.

An unusually good treatise, the second edition of which appeared in 1884, was Layard's *Birds of South Africa*, a textbook of great value to the systematic student.

A noteworthy cyclopedia, the *Histoire physique de Madagascar* of A. Grandidier, 1875–1920, in more than 40 vols., is still unfinished. The whole range of zoology is fully treated in this monumental work.

In 1875 W. H. Drummond wrote a very readable *Large Game and Natural history of South and South-east Africa* and, 1888, an interesting record of the natural history explorations of this traveller appeared that he entitled *Tropical Africa*.

The fauna of Somaliland are described in George Rævoil's *Faune et Flore des Pays Çomalis*, 1882.

The fauna of Equatorial East Africa is partly described in Schillings' *Mit Blitzlicht und Büchse*, 1905.

Later (1910) R. E. Drake-Brockman wrote his well-known *Mammals of Somaliland*.

Of great interest for zoologists is C. V. A. Peel's *Somaliland* (1900) which gives a good account of the fauna (including the reptiles) of East Central Africa.

Among the 'local faunists' that have written about *South America* is Charles Chubb (1851–1926) who with Lord Brabourne began what (owing to the untimely death of both authors) was unfortunately never finished, a complete account of the avian life of that continent. All that appeared is the *Birds of British Guiana*, 1916.

In 1907, R. Crawshay wrote his *Birds of Tierra del Fuego*, describing most of the species found on the islands and mainland in the region of the Straits of Magellan.

In 1884–6 Taczanowski (1819–99) published at Rennes, France, his *Ornithologie du Pérou*, a valuable treatise in four volumes.

In his *Fauna Peruana*, 1844–6, Baron Tschudi described the birds (with J. Cabanis), fishes, and reptiles.

A good description of many South American birds is to be found in Azara's (1805) *Histor. nat. de los páxaros del Paraguay*, Madrid.

In 1820 Mikan issued in four parts, with 24 colored plates, his classic *Delectus Florae et Faunae Brasiliensis*. A much later work on the birds of Brazil is that of A. Pelzeln, published in 1871.

For a study of Brazilian mammals, see *Brazil. Commissão de Linhas Telegraphicas*, 1914–16.

A classic travelogue that passed through several editions and translations is Bates' *Naturalist on the River Amazons* (1863, London). In it bird-life plays a prominent part.

The birds of South-Western Mexico were described by G. N. Lawrence, a report based

on the collection made in 1875 for the United States National Museum by F. E. Sumichrest (1828–82).

One cannot mention too often that remarkable series, *Biologia Centrali-Americana*, in which (1880) P. L. Sclater described the avifauna.

In 1880 Marsh brought out his well-known *Odontornithes: Extinct Toothless Birds of North America*, a monograph that should be studied by every student of zoology.

Alexander Wilson (1766–1813), the 'Father of American Ornithology', was born in Scotland, the son of a Paisley weaver. He became a pedlar and while tramping about Scotland composed a number of dialect poems that enjoyed a wide popularity, some of them highly praised by the poet Burns. Mixing with politics and being unable to pay a fine inflicted because of certain literary indiscretions he was imprisoned for a time. Smarting under a sense of injustice he emigrated to America.

While employed as a village schoolmaster he made drawings of birds which William Bartram, the naturalist, encouraged him to continue and finally to publish. In 1806 he was appointed one of the editors of *Ree's Encyclopaedia* and thus acquired the leisure and means to bring out his great work, the seven-volume *American Ornithology*. After the appearance of the first volume of this famous treatise he spent the following winter, as he said, 'in search of birds and subscribers'. In 1876 a statue was erected to Wilson in his native town. He died in Philadelphia at the early age of forty-seven.

Practically all the monographs of this fundamental writer (including the rare variants of title) are in the E.S.W. and Blacker libraries.

Although Joseph Henry (1797–1878) did not contribute much to the systematic literature of vertebrate zoology he, as the first Secretary of the Smithsonian Institution and a man of varied scientific attainments, did much to encourage the study of zoology. Born in Albany, N.Y., of Scottish ancestry, he first attended a country district school and afterwards an Albany academy, to which he was in 1826 attached as teacher. In 1832 he was appointed professor of natural philosophy at Princeton and in 1846 resigned to accept charge of the Smithsonian. By general consent he was the foremost of American physicists.

Prince Lucien Jules Laurent Bonaparte (1803–57), son of Lucien and nephew of the Emperor Napoleon Bonaparte, was a scientist and rarely acted the part of a royal politician. He married in 1822 his cousin Zénaïde Bonaparte, daughter of King Joseph, and at the age of 22 began the publication in Philadelphia of his *American Ornithology*, a natural history of birds inhabiting the United States, not given by Wilson. Subsequently he published, generally in the U.S.A., numerous papers and treatises on various aspects of natural history as he observed them both in America and Europe, most of which have been collected for the McGill libraries. Despite the handicaps of his royal descent and surroundings, he was a devoted and efficient student of nature fit to rank with the best systematic writers on zoology.

Jean Louis Rodolphe Agassiz was born at Motier, Fribourg, Switzerland, May 28, 1807, and studied at Lausanne, Zurich, Heidelberg, and Munich. He graduated in medicine in 1830 and early began his uninterrupted and successful career as a naturalist, having in 1829 written an essay on the *Fishes of Brazil* that was warmly praised by Cuvier. This work was followed by others on ichthyology and by published observations on glacial action. He traveled extensively in Europe and in the United States, lecturing mostly on zoologic topics in various cities of the Old and New Worlds. In 1848 he was elected professor of natural history at Harvard and henceforth occupied several positions of honor and trust in the United States, declining offers of chairs in European universities. He finally gave all his collections to found a Museum of Comparative Zoology at Harvard—that flourishing activity further developed by his son, Alexander Agassiz (1835–1910). A life of unusual

scientific devotion came to an end at Cambridge, Mass., December 14, 1873.

The titles by J. L. R. Agassiz that relate to vertebrate zoology will be found in the appended Catalogue.

Spencer Fullerton Baird (1823–87), foremost American naturalist of his time, was born in Reading, Pa., and graduated from Dickinson College in 1840. It was a meeting with Audubon that turned the young man's attention to ornithology. In pursuit of this study he made long journeys through the country. Later he studied medicine and in 1845 became a professor in Dickinson College, lecturing on various natural science branches. He made large collections of faunal material which became eventually the nucleus of the immense resources of the Smithsonian Institution, of which he became Assistant Secretary in 1850.

His chief scientific labors are on record in the publications of that body, the Reports alone being enough to satisfy the ambition of any man. Coues thinks his treatise on Birds 'marked an epoch in the history of American ornithology'.

In 1878 Baird succeeded Joseph Henry as Secretary of the Smithsonian and in 1877 he died at the age of sixty-four, with complete recognition of his valuable labors for his country and full of honors conferred on him by almost every civilized Government. In addition to his publications on ornithology, Baird wrote a notable *Mammals of North America*, 1859, as well as many treatises on reptiles. All these are recorded in the appended Catalogue.

Among the early works on North American mammals is the treatise of the versatile Dr. Richard Harlan (1796–1843), *Fauna Americana*, pp. 318, 4to, published in Philadelphia, 1825. His composite work on medicine, zoology and comparative anatomy appeared in 1835. A presentation copy of this work from the author is in a McGill library.

Revised *Check Lists of North American Birds* are published by authority of the American Ornithologists' Union every few years. Files of these should be found in every good library on zoology.

In 1878 appeared J. H. Studer's *Birds of North America*, with 119 hand-colored plates by T. Jasper.

Of local faunists Chas. J. Maynard (1845–1929) contributed much to American literature. His *Birds of eastern North America*, 1872–81, and his *Contributions to Science*, 2 vols., 1884–94, form part of these papers.

Elliott Coues, one of the most brilliant and versatile of American naturalists, was born at Portsmouth, N.H., on September 9th, 1842. When eleven years of age he removed to Washington, D.C., where he attended Gonzaga College. Then he became a student at Columbia University, graduating B.A. in 1861 and entering the medical school the following year. After graduation as an M.D. he entered the U.S. Army and for seventeen years remained in the Service, resigning in 1881 (as Captain) to devote himself entirely to scientific pursuits. During his army life he was stationed at various posts (especially in the far West) at all of which he worked continuously at his favorite subjects. He was fortunate in having as mentor Professor Baird, under whose guidance he wrote several monographs. On his return to Washington he contributed largely (among many other tasks) to the *Century Dictionary* and devoted many years to the famous *Bibliography of Ornithology* which, unfortunately, he was not able to complete.

Among the numerous publications undertaken by Dr. Coues was a series of historical scientific treatises, the first of which appeared in 1893 and dealt with the *Expedition of Lewis and Clarke*. Coues died at the early age of fifty-seven and the world of science lost one of the most trenchant, analytical, painstaking and ready writers America has ever seen. Practically all his many works are to be found in the McGill libraries, and listed in the appended Catalogue.

A very good account of their natural history

is contained in A. E. Verrill's *Bermuda Islands*, 1902.

Among the publications of the Provincial Museum of Victoria, British Columbia, is a useful *Catalogue of British Columbia Birds*, by F. Kermode, 1904.

At this place may be mentioned W. A. Bryan's useful *Key to the Birds of the Hawaiian Group*, 1901.

On several occasions the Compiler has commented on the mass of literature on local fauna contributed by American writers, especially monographs on vertebrate life in various States of the Union. Several early Massachusetts reports on the flora and fauna of that state were published officially by various commissions from Geological, Zoological, and Botanical Surveys in 1835, 1838, and 1839, respectively. All these reports are listed in this Catalogue under *Massachusetts, State of.*

An outstanding and very rare monograph, depicting and describing local fauna, is *Nests and Eggs of Ohio Birds*, by the Jones family, 1879–86, an excellent hand-colored atlas (68 plates) of which very few copies were issued. The illustrations are superb, accurate pictures, drawn from nature. An early copy is in the Blacker Library.

The first systematic treatise on North American zoology by an American, including an account of new species collected by the Lewis and Clark Expedition, is George Ord's (1781–1866) extremely rare *North American Zoology*, 1815, a reprint of which was published by S. N. Rhoads in 1894.

In 1879 T. L. T. Kumlien published his *Contributions to the Natural History of Arctic America*, in which L. Kumlien described the Birds and Mammals, while T. H. Bean wrote about the Fishes.

In 1886 appeared Turner's *Natural History of Alaska* largely devoted to bird life in the far north of the American continent.

During 1888 Belt published his interesting *A Naturalist in Nicaragua*, an account of one of the numerous natural history expeditions made during the nineteenth and twentieth centuries to Middle and South America.

In 1889 Sclater and Hudson published in London their charming *Argentine Ornithology*, an amended edition of which was published in 1920 (2 vols.) by Hudson alone, with the title *Birds of La Plata.*

In 1890 Warren published at Harrisburg his *Birds of Pennsylvania*, one of many American contributions to local ornithology.

In its Zoological Series the Field Museum of Natural History issued a very useful *Catalogue of Mammals* by D. G. Elliot, Chicago, 1907, not only of North American but of many exotic species.

Here may be mentioned a special treatise by Carl H. Eigenmann, an outstanding work on *Cave Vertebrates of America*, 4to, published by the Carnegie Institute of Pittsburgh in 1909.

The *Marine Mammals of the N.W. Coast of North America* are described by C. M. Scammon (and W. H. Dall) in a well-illustrated essay of 319 pages, quarto, published in 1874.

W. T. Grenfell's *Labrador*, 1909, furnishes a good account of the vertebrate fauna of that desolate coast.

Charles Cory's studies of West Indian Birds, not to forget his monograph on the birds of eastern North America (1899), should be borne in mind, all of them to be found in the present Catalogue.

The latest West Indian account of island zoology is the *Survey of Porto Rico and the Virgin Islands*, 1927–30, of which 31 parts have appeared—a comprehensive and most valuable serial.

Of the many smaller works on American ornithological specialties a well-illustrated monograph is A. Pope's *Upland Game Birds of the United States* (1878), with 20 colored plates.

CHAPTER XIII

III. *SOME IMPORTANT TREATISES AND MONOGRAPHS ON ORNITHOLOGY AND MAMMALOGY PUBLISHED DURING THE NINETEENTH AND TWENTIETH CENTURIES, CONCLUDED.*

***Australasian zoology*: John Gould—E. P. Ramsay—Walter Buller—Campbell—Gregory Mathews—F. McCoy—W. H. D. Le Souëf—*Oceania*: Hartlaub and Finsch—A. R. Wallace—J. S. Gardiner—Gould and Sharpe—W. R. O. Grant—Salvadori—Wilson and Evans—Worcester and McGregor—*Scandinavia*: Conrad Quensel—Sven Nilsson—Linnaeus—A. J. Retzius—G. O. Sars—H. J. Wheelwright—Gaimard and Quoy—Niel Horrebor—J. E. C. Walter—M. von Wright—J. C. Schiödte—Faber—H. C. Müller—Collin—Kjaerbølling—Sundevall—Holmgren—Einar Lönnberg—Jägerskiöld and Kolthoff—E. L. Schiøler—I. Hartling—Collett—*Zoology of Germany*: Reichenbach—The Naumanns—J. Sturm—B. Borggreve—Gätke—Leverkühn—von der Mühle—Reichenow—Zander—*Switzerland*: Stölker—Fatio and Studer—H. R. Schinz—P. Blanchard—Irby—*Italy*: Count Salvadori—Savi—Giglioli—M. Craveri—E. G. Dehaut—L. Benoit—G. Motorelli—Arrigoni degli Oddi—G. Madarasz—Bory de Saint-Vincent—S. A. Renier—Canon Tristram—*India*: Hume and Marshall—R. A. Sterndale—Chas. Hose—Kelaart—Legge—G. M. Henry—Blanford and Oates—Huber—*American literature*: Godman and Salvin—Richardson and Swainson—*Zoological anatomy*: Nitzsch and Burmeister—J. Rennie—Fürbringer—Perrier—M. G. Retzius—Casey Wood—*Australia*: John Gould—J. L. G. Krefft—*Popular ornithology*: Sharpe—Frank Chapman—Knowlton and Ridgway—Stejneger—R. Lydekker—Evans—Pycraft—Beddard—A. Newton—Stone and Cram—Bertha Sturgis—McGregor—H. W. Henshaw—Guthrie-Smith—*French zoology*: Vieillot—P. Gervais—A. Risso—Benoist—Degland—Lesauvage—Teslé—René Paquet—Roux—Lapommeraye—Crespon—*Belgium and Holland*: Selys-Longchamps—P. J. van Beneden—A. Dubois—H. Schlegel—Büttikofer—Albarda—Blaauw—*Russia*: A. Humboldt—Eichwald—von Schrenck—von Hofmann—Middendorff—Radde—*United States and Canada*: T. H. Streets—S. B. Wilson—Anthony—Le Moine—C. E. Dionne—E. D. Wintle—F. E. Beddard—F. C. R. Jourdain—E. G. Boulenger—*Economic ornithology*: E. R. Kalmbach—Junius Henderson—W. E. Collinge—H. K. Job—*Bird Banding*: Audubon—Alex. Wetmore—Julian Huxley.**

OF the many beautifully illustrated volumes devoted to *Australasian zoology* John Gould's quarto volumes on the *Birds of Australia*, London, 1837–8 and 1848–69, still hold the palm. As a textual companion to this treatise the author published, London, 1865, a *Handbook to the Birds of Australia*.

In 1878 E. P. Ramsay issued in Sydney his *Tabular List of Australian Birds*, with a more complete edition in 1888.

Comprehensive accounts of the vertebrates of New Zealand have been written (1904) by F. W. Hutton, both alone and in collaboration with J. Drummond.

In practical value and up-to-date arrangement the remarkable 12 volumes of Gregory

Mathews, *The Birds of Australia*, London, 1911–28, stand pre-eminent.

A good account of local Australian fauna (including vertebrates) is to be found in F. McCoy's serial *Natural History of Victoria*, 1878–90. Another is a history of the vertebrata of New South Wales given in the *Handbook* of the meeting at Sydney (1914) of the British Association for the Advancement of Science.

Two very interesting volumes on the *Wild Life of Australia* appeared in 1907–9 from the pen of W. H. D. Le Souëf (q.v.).

Regarding the *zoology of Oceania*, in 1867 Hartlaub and Finsch contributed their *Beitrag zur Fauna Centralpolynesiens*, with an account of the birds.

In 1869 there appeared in New York Alfred R. Wallace's famous *Malay Archipelago*, mostly devoted to Oceanic birds.

John S. Gardiner wrote (and edited) his noted *Fauna and Geography of the Maldive and Laccadive Archipelagoes*, 1902–3.

The year 1881 saw the publication of another of John Gould's famous works—completed after his death by Bowdler Sharpe—the *Birds of New Guinea*.

The *fauna of Australasia* and other countries of *Oceania* has also been fairly well described in the various voyages herein listed, among them the expeditions of Hakluyt, Dampier, La Pérouse, and Captain Cook, not to forget the monographs of Latham and many others. There must also be mentioned Shaw's *Zoology of New Holland* (1794), the latter appearing in a second edition entitled *A Natural History of the Birds of New South Wales* (1808), with additional plates. There was also a third, posthumous, printing in 1822.

Reference has elsewhere been made to Surgeon-General John White (fl. 1788–96) who wrote an interesting *Journal of a Voyage to New South Wales*, 1790, in which he gives an account of the faunal and floral life of that country. The mammalia are systematically described by J. Hunter, the other animals by G. Shaw. This work was translated into French with notes by C. J. Pougens, Paris, 1795–8. A German transcription of the same material, 8vo, 1793, was also published as part of F. A. A. Meyer's *Uebersicht der neuesten zoologischen Entdeckungen in Neuholland*, &c.

In 1866 Diggles began to issue (in parts) his *Ornithology of Australia* which (though never completed) continued until 1877, when it was published as two volumes in Brisbane.

In 1883 A. J. Campbell's *Nests and Eggs of Australian Birds* appeared—a most useful manual. In recent years Leach's *Australian Bird Book* (first printing 1923), a valuable handbook, has been very popular.

The *islands of Oceania* have a considerable literature all their own, only a fraction of which can be mentioned at this time and in this place. Two are Wigglesworth's *List of Polynesian Birds*, Dresden, 1891; T. Salvadori's *Ornithologia della Papuasia e delle Moluche* (and an *Aggiunte*) 1880–91.

In addition to the Polynesian avifauna described in the voyage of the 'Challenger' several informing works appeared since the earlier contributions, the last of which were Gregory Mathews' *Birds of Norfolk Island* (1928), and Casey Wood and Alex. Wetmore's *Birds of Fiji*, 1925–6.

Among the works dealing with the avifauna of Australasia is Sir Walter Buller's *Birds of New Zealand* in two editions, 1872–3 and 1888, finely illustrated with drawings by Keulemans. In 1882 Buller brought out a useful *Manual* based on the first edition of his Birds. Many of the original drawings made by Keulemans for these treatises are in the Blacker Library.

G. R. Gray also contributed studies of New Zealand birds, in his Appendix to Diffenbach's *Travels in New Zealand* (1843) and in the *Zoology of the 'Erebus' and 'Terror'* (1844–76).

Of special systematic value is F. W. Hutton's *Catalogue of the Birds of New Zealand*, 1871.

A recent (1930) and well executed work, with an excellent combination of popular and systematic attractions, is W. R. B. Oliver's *Birds of New Zealand*.

As mentioned, a well-known contributor to

the vertebrate zoology of Australia is George Shaw (1751–1813) the author of the *Speculum Linnaeanum: or Linnaean Zoology* (4to, 1790).

Still another comparatively early and well-known naturalist-traveler was Philip Parker King (1793–1856) who wrote several works on the natural history of the Australian continent. He was the editor of a two-volume *Survey of . . . the Western Coasts of Australia between 1818–22*, 8vo, London, 1827, in which the vertebrate fauna were described by J. E. Gray. Here must be mentioned, also, the wide wanderings of George Bennett who, among other books, wrote the attractive *Gatherings of a Naturalist in Australasia*, &c., 8vo, London, 1860.

A description of the birds of Malaysia is given by W. R. O. Grant in Annandale and Robinson's *Fasciculi Malayenses*, 1903.

Wilson and Evans brought out (in 1884) their pioneer treatise on the *Birds of the Sandwich Islands*, followed (1893–1900) by the beautifully illustrated *Avifauna of Laysan*, including an up-to-date systematic description of some birds of Hawaii, by Lord Rothschild.

Worcester and McGregor published their valuable *Hand-List of the Birds of the Philippine Islands* in 1906.

Much of the literature describing the fauna —especially the birds—of the Philippines will also be found in certain periodical publications, e.g. the *Philippine Journal of Science* (edited by McGregor); in the *Journal f. Ornithologie*; *Ibis*; *Proc. Zool. Soc., et al.*

As previously mentioned, *Scandinavia* is well represented in faunal literature, native and foreign. An early writer, Conrad Quensel (1767–1806), although mostly a botanist, wrote (in conjunction with others) *Svensk Zoologi*, 1806, while Sven Nilsson, under the caption *Skandinavisk Fauna*, wrote, between 1820 and 1855, and published in Lund, a series of monographs pretty well covering the whole range of Scandinavian vertebrates.

The Swedish flora and fauna catalogued by Linnaeus were fully described by that voluminous writer Anders Jahan Retzius (1742–1821) in numerous essays on the subject. In the production of these tractates he was associated with fellow naturalists. One of the monographs that interest us is his *Faunae Suecicae, pars prima* (vertebrata), 8vo, 1800. Of the same character as Retzius was Georg Ossian Sars (1837–?1909), who with collaborators (Daniel C. Danielssen, 1815–94, for example) described the marine life of north European seas and made many contributions to the oceanic fauna of other localities.

Writing under the pen-name of 'An old Bushman' H. W. Wheelwright contributed (1852–7) a number of monographs on Swedish and general Scandinavian vertebrate zoology. See the present Catalogue.

A survey of the flora and fauna of Iceland, Greenland, Lapland, Spitzbergen, the Faröes and neighboring islands was made by a French *Commission scientifique* between 1835 and 1846 in the corvette 'Recherche'. The results of these expeditions were published, 1842–4, in nearly 30 volumes, an immense work of great importance. We are chiefly concerned with the faunal descriptions given by one of the zoologists Paul Gaimard (1790–1858), who described many new species, especially in the *Voyage en Islande et au Groenland . . . 1835–36*, published Paris, 1840–4, 6 vols. text, 3 atlases with 250 plates. Associated with the name of Gaimard is that of Jean René Constant Quoy (1790–1869) whose combined and original contributions to zoology are so well known in connection with the famous voyages of the 'Uranie' and 'Physicienne' and the 'Astrolabe', 1817–18.

A contribution to the faunal history of Iceland well worth mentioning is Niels Horrebov's *Account*, published in London, 1758.

A monograph on Scandinavian ornithology, in both Danish and German, was published by J. E. C. Walter in 1828, a second edition appearing in 1832.

Magnus von Wright's *Finlands Foglar*, 1873, is one of the best studies of the birds of Finland yet published.

During 1878–1907, J. C. Schiödte published *Zoologia Danica*, which, though incomplete, is

an interesting semi-popular account of faunal life in Denmark.

Of other northern (sub-arctic) ornithology the birds of Iceland have been well described by Faber, whose *Prodromus der isländischen Ornithologie* was published as early as 1822. Since that date several travelers and various expeditions have furnished additional information regarding sub-polar fauna, birds in particular. Of these mention may be made of Baring-Gould's *Iceland; its Scenes and Sagas*, 1862. H. C. Müller has described the birds of the Faroes in his *Faeröernes Fuglefauna*, 1822, better known in its German translation.

Scandinavian ornithology, both general and local, is well presented in Collin's *Skandinaviens Fugle*, 1873; by the publication in 1856 of Kjaerbølling's *Danmarks Fugle*; by Sundevall's *Svenska Fåglarna* 1856–73; and by Holmgren's *Skandinaviens Fåglar*, 2 vols., 1866–73.

Attention must be drawn to the recent work of Einar Lönnberg, the last edition (1917–29), of that classic treatise *Svenska fåglar*—the Birds of Sweden, originally written by the Wrights, M. and W. The first edition appeared during 1828–38, and was the principal authority on the subject.

A valuable contribution to the systematic study of North European bird life is *Nordens Fäglar*, now in course of publication (1911–26, 48 parts), by Jägerskiöld and Kolthoff.

A truly great and well illustrated treatise (8 vols.) that was intended to include the avifauna not only of Denmark but of Greenland, Iceland, and the Faroes is Eiler Lehn Schiøler's (1874–1929) *Danmarks Fugle*. Two volumes had already been published and a third was under way when the distinguished author died.

A more recent and valued publication on avian life is Ivar Hartling's (1929) *Ornithologist Handbok . . . over all i Finland fagelarter*.

As has been noted, the avian literature of Norway is quite voluminous, of which one may quote Collett's *Norges Fugle* that first appeared in 1868 with a supplement in 1871 and an English translation by Cocks in 1894. Collett has also written an original work in English entitled *The Ornithology of Northern Norway*.

A new and very important contribution to Northern faunal literature is the account (not yet completed) given under the title *Fauna arctica*, 1900 to date. Several writers of note are included in this series, F. Römer, F. Schaudinn, A. Brauer, and W. Arndt among the number.

Several pages might easily be filled with a list of works on the *zoology of Germany*, in particular treatises on its avifauna, or rather upon the bird life of Central Europe. The most important of these appear (with brief annotations) in the appended Catalogue; only a few of the outstanding titles will be referred to here.

Although the complete series of H. G. L. Reichenbach's faunal cyclopedia, *Naturfreund* (1834–63), is almost unobtainable, yet parts of it are available and form a valuable contribution to general vertebrate zoology.

As already pointed out, of treatises on *avifauna germanica* the systematic volumes of the two Naumanns head the list. The various editions of these treatises, with their scientifically arranged text, beautiful plates, and well-printed pages, form models after which other faunal cyclopedias may well be fashioned.

Of the many early nineteenth-century efforts to describe and depict the fauna of Germany, local and general, the Compiler wishes to draw attention to the works of Carl Ludwig Koch (1778–1857) who, although he is best known as a writer on the *articulata* and other invertebrates of Middle Europe, also published several treatises on the vertebrate zoology of Germany. Among these were *Deutschlands Fauna* (written with J. Sturm); *System der Baierischen Zoologie*, 8vo, Nürnberg, 1816, and *Fauna Ratisbonensis*, 8vo, 1840, in collaboration with A. E. Fuernrohr.

One of the illustrators that furnished valuable information for the student of German nineteenth-century biology is the Nuremberg artist-naturalist-engraver Jacob Sturm (1771–1848). In conjunction with several others he

depicted with fidelity the flora and fauna of Central and Northern Europe. We are mostly concerned with his *Deutschlands Fauna in Abbildungen nach der Natur, mit Beschreibungen*, 4 parts, Nuremberg, 1797–1857; a fifth part, contributed after his death, by his son, J. H. C. F. Sturm. This is a magnificent series (about 25 vols.) well written and illustrated by hundreds of colored plates.

Newton (*Dictionary*, p. 39), commenting on the numerous works on the Birds of Germany, contents himself with an alphabetical list of the chief contributors. If we add some twenty or thirty names to the collection we may (by reference to the pages of the present Catalogue) gain a fair knowledge of the avifaunal literature of Middle Europe as it appeared in book form during the past 150 years. In passing, attention is drawn to *Die Vogel-Fauna von Norddeutschland* of Bernard Borggreve, 1869, that appends a bibliographical index of all the important literature on bird life to the date of publication.

This roster of Central European literature on bird lore displays the names of Brehm (the elder and younger), von Droste, Gätke, Gloger, Hintz, Holtz, Alexander and Eugen von Homeyer, Jäckel, Koch, König-Warthausen, Krüper, Kutter, Landbeck, Landois, Leisler, Leverkühn, von Malzan, Matschie, Bernhard Meyer, von der Mühle, Neumann, Reichenow, Tobias, Johann Wolf, and Zander—most of whose writings have found a place on McGill Library shelves and are listed in this Catalogue.

It must be remembered that certain well-known German ornithologists have written much about foreign bird life and little about the avifauna of their own country, among them Cabanis (editor of the *Journal für Ornithologie*), Finsch, Hartert, Hartlaub, Heine, Prince Max of Wied, A. B. Meyer, Nathusuis, Nehrkorn, Reichenbach, and Schalow. To the above list may be added the South-German von Pelzeln.

Victor von Tschusi zu Schmidhofen wrote a monograph on Tyrolese birds, 1877, as well as an ornithological bibliography of Austria-Hungary, 1878.

The literature of *Switzerland's ornithology* is furnished in a useful *Bibliographia Ornithologica Helvetica* by Stölker in the *Bulletin de la Société Ornithologique Suisse*, vol. ii, p. 90, which gives a list to date of publication on Swiss birds. The names of Fatio and Studer are among the most prominent.

As regards Swiss vertebrates, one of the most reliable of the earlier writers on the subject is Heinrich R. Schinz (1777–1861) who in addition to numerous monographs on the fauna of his native land, e.g. *Verzeichnis der in der Schweiz vorkommenden Wirbelthiere*, 4to, 1837, published several works on European and general zoology. One of the former, in 2 vols., Stuttgart, 1840, is entitled *Europäische Fauna*.

The *faunae, especially the birds, of Portugal* have several times been described, in one instance rather well by an early, rare, and excellent five-volume work on vertebrate zoology by Pedro Blanchard, the *Thesouro de Meninos*; *Resumo de Historia Natural*, &c., Lisbon (1817–19); later a work by Barboza du Bocage, *Catalogue das Collecões Ornithologicae*, 1869.

The *birds of Spain* have not received, relatively, much attention, although Irby's *Ornithology of the Straits of Gibraltar* (two editions, 1875 and 1895) and Abel Chapman's *Wild Spain* (1893) cover the ground fairly well.

The overlapping of Romance literature is seen in zoology as well as in other departments of book-making, and there are several French faunal works that include the zoology of the Iberian peninsula and its neighborhood.

Italy is well represented by numerous works on vertebrate zoology, especially by the *Fauna d'Italia*, the second part of which, *Uccelli*, from the pen of that eminent zoologist, Count T. Salvadori, contains a good bibliography of Italian avifaunists. This author has written, among other treatises, an excellent *Elenco degli Uccelli Italiani* (1887) and Savi an *Ornitologia Italiana*, in 3 volumes, 1873–7. Still another and much more elaborate treatise is Giglioli's *Iconografia dell'Avifauna Italica*, in

five folio volumes, 1879–94, beautifully illustrated by hand-colored plates.

It will be remembered that Prince Lucien Bonaparte also wrote an *Iconografia della Fauna italica*, Roma, 1832–42, in 3 folio volumes.

The *animal life of Sicily* and its neighborhood was thoroughly described in several monographs by Oronzio Gabriele Costa (1787–1867). The earliest of these general descriptions is furnished by his *Fauna del Regno di Napoli*, &c., in 11 vols., 4to, col. ill., 1829–86, this monumental work having been continued by his son, Achille Costa, after the death of the father.

Among the noteworthy nineteenth-century writers on natural history was Alfred Malherbe, author of several monographs on Mediterranean flora and fauna; also of a *Faune ornithologique de la Sicile* (1843) and similar works on the birds of Algeria (1846 and 1855). Even more important is his two-volume (with Atlas) folio (Metz, 1861–2), the *Monographie des Picidées*.

A rather early, almost complete (and rare) catalogue of Italian vertebrate faunae was compiled by Giglioli in 1880, entitled *Elenco dei mammiferi* &c.

An Italian translation (1926), with notes, of Louis Figuier's popular work on bird life by Michele Craveri gives a fair account of birds in general with a more extended history of Italian avifauna.

E. G. Dehaut began in 1911 to issue *Matériaux . . . pour l'histoire zoologique . . . de Corse et de Sardaigne*. In the half-dozen fascicles so far published a very good systematic account of Mediterranean vertebrates is given.

Somewhat earlier (1840) Luigi Benoit in Messina had published his *Ornithologia Siciliana*.

G. Motorelli's *Monografia* on the birds of Sardinia, 1895, is a well written and well illustrated systematic essay, although Count Salvadori's *Catalogo degli Uccelli di Sardegna* (1864) made a good foundation for it.

M. Craveri's (1927) *Atlante ornitologico; Uccelli italiani*, Milan, 300 figs. on 50 col. plates, with descriptive and explanatory text, is a very useful, well arranged work showing the majority of Italian birds at a glance. Both the indigenous and migratory avifauna are pictured for the use of students and visitors, the systematic as well as the popular names of species being given.

E. Arrigoni degli Oddi published in 1929 his *Ornitologia* (36 col. pl.), an up-to-date account of birds of the world, an elaborate extension of the author's *Manuale di Ornitologia Italiana*, 1904.

The best account of the *birds of Hungary* is furnished by the works of G. Madarász (1899–1903).

Countries bordering on the Mediterranean were, during the troublous Napoleonic years, examined from time to time as to their faunal life by Baron Bory de Saint-Vincent, the results of which have been given by him and other writers.

The faunal life of the Adriatic and its shores was examined and reported on by Stefano Andrea Renier (1759–1830) in a posthumous, illustrated work entitled *Osservazioni posthume di Zoologia Adriatica*, Venice, 1847.

Greece, Turkey, and the Levant are partly represented in Tristram's *Flora and Fauna of Palestine*, 1884, and Shelley's *Birds of Egypt*, 1872.

A note may here be made of the *faunal literature of the Far East*. Hume and Marshall wrote on *Indian Game Birds* (1878–80), and on the *Nests and Eggs of Indian Birds* by Hume alone, 1889. These volumes may be regarded as supplementing the classic work of Oates and Blanford (*q.v.*), especially their monumental treatise on the *Fauna of British India*, 1889–90.

A profitable work on the *Mammalia of Ceylon and India* was published by Robt. A. Sterndale in 1884.

A brief but useful account of the mammals of Borneo was furnished by Chas. Hose, 1893.

Ceylon has received abundant attention from zoologists. In 1852 was published Kelaart's *Prodromus Faunae Zeylanicae*; Ten-

nent's *Sketches of Natural History of Ceylon* (1861); Legge's *Birds of Ceylon* (1878–80) with admirable colored plates by Keulemans, and (in 1925) Wait's *Manual of the Birds of Ceylon.*

During 1927–30 there appeared a noteworthy publication, a series of (48) *Coloured Plates of the Birds of Ceylon,* reproductions of fine drawings by G. M. Henry, made on the spot from live specimens of indigenous Island life. This is a Colonial Government publication, the original drawings having been loaned for the purpose by the Compiler of this Introduction and Catalogue.

Continental India has had a large share of literary contributions to studies of its fauna, much of it appearing in periodical literature. A Government series of great value, *The Fauna of British India,* by Blanford and Oates (Stuart Baker is now engaged on a second edition—in six or seven illustrated volumes—of the Avifauna) is the most important of these treatises, although Jerdon's *Birds of India* (1862–4) must be given first place as a forerunner. Blyth's posthumous *Mammals and Birds of Burma* (1875) must not be omitted from any bibliography, however incomplete, of Indian zoology.

Of the numerous contributions to a study of *animal—especially avian—flight* in its relation to aeronautics, a rather sensible study is an early one by Jean Huber, *Observations sur le vol des Oiseaux de proie,* 1784.

Here one may once more remind the reader of two remarkable books, first of that monument of industry, Godman and Salvin's *Biologia Centrali Americana,* 1879–1915, in which all the vertebrate sub-classes are wonderfully well described and depicted. To be bracketed with that fine collection is the much earlier *Fauna Boreali-Americana,* the quadrupeds and fishes by the Editor, Sir John Richardson; the birds by W. Swainson and Richardson.

Of works on the *morphology of bird life,* in 1867 there appeared in London an excellent translation of Nitzsch and Burmeister's (1840) classic work, *System der Pterylographie,* still an authority on the plumage distribution of birds.

Of anatomical books on birds one of the best is James Rennie's *Bird Architecture,* London 1844.

A very important original work of reference familiar to all research workers, is Führbringer's (1888, Amsterdam) *Untersuchungen zur Morphologie u. Systematik der Vögel.*

One of the many textbooks with anatomical illustrations is J. O. E. Perrier's admirable *Traité de Zoologie,* 1893–1928.

On the organs of special sense, M. G. Retzius' *Das Gehörorgan der Wirbelthiere,* in two illustrated volumes, 1881–4, is probably the most complete of otologic treatises.

Contributions to the scarce literature on *fossil eggs* have been made by the Compiler. See his essays on the *Fossil Eggs of Bermudan Birds* (by Casey A. Wood, 1923), and *A Fossil Bird's Egg from the Post-Tertiary Mud-Rocks of Fiji,* 1925, from the pen of the same writer.

A book notable for the colored illustrations characteristic of the author is John Gould's *Mammals of Australia,* 3 vols., 1845–63.

In 1871 J. L. G. Krefft published his folio, the *Mammals of Australia,* illustrated, preceded, in 1868, by his *Notes on the Fauna of Tasmania.*

The end of the nineteenth century and beginning of the twentieth was a period for publication of many *semi-popular volumes,* generally well illustrated in color, describing and depicting the fauna of the world. Of these may be mentioned Sharpe's *Royal Natural History,* four volumes of which (1898) are devoted to bird life; Frank Chapman's *Bird Life,* N.Y., 1898; Knowlton and Ridgway's (1909) *Birds of the World*—one of the best—and the *Standard Natural History,* published in Boston, the ornithology of which was (1885) edited by Stejneger, and the *Royal Natural History,* 1893–6, edited by R. Lydekker, who also wrote on the vertebrates. To this list may well be added two admirable compilations on avifauna, Evans (1900), in the *Cambridge Natural History Series,* and Pycraft's *History of Birds,* published in London, 1910.

A scientific monograph on the *Structure and*

Classification of Birds was published by Beddard, London, 1898. A few years before (1896) had appeared the first edition of Alfred Newton's famous classic, *A Dictionary of Birds*.

Returning to the other vertebrate classes, it will be noted that in 1902 was published Stone and Cram's *American Animals*, a work of great practical value to students. Shortly before this C. L. Herrick had written (1892) his excellent *Mammals of Minnesota*.

A useful manual is the recently issued (1929) *Field Book of Birds of the Panama Canal Zone* by Bertha Sturgis.

Richard C. McGregor has furnished us with a full description (1903–24) of the avian fauna of the Philippine Islands.

A very good popular and systematic account of Hawaiian birds is given by H. W. Henshaw, 1902.

That popular writer on New Zealand fauna, H. Guthrie-Smith, published in 1927 an interesting book entitled *Birds of the Water, Wood and Waste*.

French literature on vertebrate zoology is quite voluminous. In addition to that already noted, one of the most valuable and extensive undertakings is the *Faune Française* by Louis J. P. Vieillot (1820–1831) and other French naturalists. Eight volumes and an Atlas were published between 1820 and 1823; in a sense contributions have been made to it ever since, if (among many others) one includes such additions to this *histoire* as Paul Gervais' *Zoologie et Paléontologie françaises*, 4to, Paris, with an Atlas, 1850; second edition, 1859.

The fishes and other marine animals inhabiting the coastal waters of Southern France were, early in the nineteenth century, studied and described by Antoine Risso, in his *Ichthyologie de Nice*, 8vo, Paris, 1810, followed by his *Histoire naturelle des principales productions de l'Europe méridionale*, 5 vols., Paris, 1826.

Local French faunae, especially birds, are well described by a large number of writers whose productions are listed in this Catalogue. These are (*vide* Newton) chiefly Benoit, Baillon, Blandin, Bureau, Canivet, Chesnon, Degland, Demarle, De Norguet, Gentil, Hardy, Lemetteil, Lemonnicier, Lesauvage, Maignon, Marcotte, Noury, and Teslé. To this category may be added the more modern names of Ménégaux, René Paquet, and many others.

The last-named, under the pseudonym Nérée Quépat, has written an interesting *Ornithologie Parisienne*; Roux, *Ornithologie Provençale*, 2 vols., 1825–9; more important, Jaubert and Lapommeraye, *Les Richesses ornithologiques du Midi de la France*, 1859–61; Bailly, *Ornithologie de la Savoie*, 4 vols., 1853–4; Bouteille and Labatie, *Ornithologie du Dauphiné*, 2 vols., 1843–4; and two interesting monographs by Crespon, *Ornithologie du Gard*, 1840, and *Faune Méridionale*, 2 vols., 1844.

The faunal *vertebrate life of Belgium* has been frequently described, the best of the earlier treatises being by M. E. de Selys-Longchamps (1813–1900), entitled *Faune belge*; a monograph that long remained the chief authority on the subject.

As previously mentioned, Pierre J. van Beneden (1809–94) devoted most of his energies to a study of the fishes (living and fossil) and other marine life of the Belgian coast, but he also published occasional papers on the terrestrial animals of the Low Countries and other localities.

A well-known treatise, the *Planches coloriées des Oiseaux de la Belgique*, published 1854–60, by Ch. F. Dubois fully covers the avifauna. This work was so well received that it was supplemented by many additions and appeared (in 1861–4) as the *Planches coloriées des Oiseaux de l'Europe*. Between 1876 and 1894 Alphonse Dubois, son of Ch. F. Dubois, published a *Faune illustrée des Vertébrés de la Belgique* (2 vols. text, 2 vols. atlas), which is at the moment the best all-round work on the vertebrate zoology of Belgium. Newton draws attention to the excellence of the text-maps showing the geographical distribution of Belgian animal life.

Of the many *Dutch works on local vertebrate zoology*, there is room to mention that eminent family of naturalists, the Schlegels. Hermann

Schlegel's *De Dieren van Nederland*, 1860, and his *De Vogels van Nederland*, in their various editions (1854–78) furnish a useful account of Holland's vertebrate faunae. Among other authors of importance that have written on the animal life of the Dutch possessions we notice Büttikofer, Crommelin, Jentink, Albarda, and Blaauw.

Denmark's faunal life is described in a serial, *Danmarks Fauna*, issued by the Danish Natural History Society (1907 to date) and is well worth the student's attention.

The explorations of Alex. Humboldt in various regions have several times been mentioned. In 1829 he visited *Asiatic Russia* with the equally well-known naturalist-traveler, Christian G. Ehrenberg (1795–1876), whose contributions to the literature of vertebrate zoology have already been noted. The travels in Southern Russia of Prince Demidof (1812–70) are described in a *Voyage dans la Russie méridionale*, 4 vols., 2 atlases, 1840–2, in which the zoology of that region is to some extent pictured.

The Caucasus was explored in 1825–6 by Carl Eduard von Eichwald (1795–1876). This naturalist is among the best known writers on Russian floral and faunal life, both living and fossil. Among his publications are not only the *Reise auf dem Caspischen Meere und in den Caucasus*, 2 vols., Stuttgart, 1834–8, but other works of interest to zoologists, e.g. *Lethaea Rossica, ou Paléontologie de la Russie*, 3 vols. and atlas, Stuttgart, 1852–68.

Another voyage undertaken in the interests of Russian zoology was that of Peter Leopold von Schrenck (1826–94), reported in the *Reisen und Forschungen im Amur-Lande . . . 1854–56*, with colored illustrations, St. Petersburg, 1858–1900. Much of the fauna of northern Europe and Asia is well described in these interesting reports by Schrenck himself.

A survey of the Russian Empire under the auspices of the Russian Geographical Society in which Ernest von Hofmann (1801–71) gave an account of the zoology is entitled *Der nördliche Ural und das Küstengebirge Pae-choi*, Bd. II, St. Petersburg, 1856. Much more important and better known are the classic works of Alex. T. von Middendorff (1815–94), especially the *Reise in den äussersten Norden und Osten Sibiriens . . . 1843–44*, 4 vols. and atlas, St. Petersburg, 1847–75. This author has also written other treatises that include Russian vertebrates. Radde's *Ornis Caucasica* is a biologic-geographic study of great value—really one of the Russian naturalist's reports on the fauna of the Empire and of his various trips throughout the Czar's vast dominions.

A valuable contribution to the *vertebrate zoology of United States* territory is the monograph of Thos. H. Streets on the *Natural History of Hawaii* (1877) in which he has included Fanning Island and Lower California. This essay was originally contributed as *Bulletin No. 7* to the U.S. National Museum.

One of the several treatises on the *Birds of Hawaii* is S. B. Wilson's *Aves Hawaiienses*, 1890–9, an excellent systematic work, completed with the help of A. H. Evans and Hans Gadow.

Anthony's *Field Book of North American Mammals*, 1928, is to be highly recommended.

In 1860 (second edition 1861) Le Moine published his *Ornithologie du Canada*, followed in 1866 by his *Birds of Canada*, but none of these titles rose to the dignity of a complete study of the subject.

Other important titles in Canadian zoology are by C. E. Dionne, *Les Oiseaux de Canada*, 1883, and a *Catalogue des Oiseaux de la Province de Québec*, 1889.

A local Canadian naturalist, Ernest D. Wintle, published in 1896 a very interesting volume, the *Birds of Montreal*, pp. 14+281, with two plates and a map.

Reference must again be made to that excellent work on *Mammalia* (1902) by F. E. Beddard as Volume 10 of the *Cambridge Natural History*.

F. C. R. Jourdain's contributions to recent ornithologic literature include his *Eggs of European Birds*, 1906–9.

Probably the best popular work on general

zoology is in four volumes, *Living Animals of the World* (about 1927), by E. G. Boulenger, W. P. Pycraft, and others, published by Hutchinson and Co., and profusely illustrated.

Economic ornithology is a wide subject barely touched in this Introduction, but it may be well to draw the student's attention to Junius Henderson's up-to-date digest of North American literature on the subject in his *Practical Value of Birds*, 1927. Perhaps the publications of the U.S. Dept. of Agriculture (Biological Survey in particular) are the most important and valuable contributions to this subject. One of many examples is E. R. Kalmbach's essays, mostly compiled for the *Farmer's Bulletin*—on the economic relations of birds to agriculture, 1920–30.

Chiefly because of the rarity of monographs on the subject one values Walter E. Collinge's *Study of the food of some British wild birds*, 1913.

An instructive work on the breeding of wild birds is H. K. Job's *Propagation of Wild Birds*, 1902.

The literature of *Bird Banding* (as a part of the study of Migration) is of comparatively recent date. Alex. Wetmore (*Ency. Brit.*, 14th ed., p. 927) refers to the attempt to mark wild birds with small bells, paint, colored yarns, &c., as much as 125 years ago, but it was not until the widespread introduction of aluminium bands that the methods became of scientific value. Audubon placed silver-wire rings on common phoebes to test their return to certain breeding localities. In 1899 C. C. Mortensen of Denmark began in systematic fashion to band ducks, starlings, storks, and birds of prey. Such good results followed that the plan was everywhere adopted.

The American Bird Banding Association began its work in 1909, afterwards taken over by the Bureau of Biological Survey, Dept. of Agriculture, at Washington. Now more than 1,500 persons are regularly engaged in the work and more than 350,000 birds have been banded. The accounts of this enterprise are found mainly in *Bird Banding Notes*, a monthly mimeographed periodical (1922 to date) issued by the U.S. Bur. Biol. Survey at Washington.

In this connection may be studied Dr. Wetmore's able and instructive *Migration of Birds*, 1927.

The literature of the courtship, mating, and reproductive habits of animals though not very large is important and interesting. The chief authority on this subject is Prof. Julian Huxley whose very valuable essays form part of the treatises listed in the accompanying Catalogue.

CHAPTER XIV

THE LITERATURE OF ZOOGEOGRAPHY — VERTEBRATE ECOLOGY — VERTEBRATE PALEONTOLOGY — ANIMAL PSYCHOLOGY — ZOOLOGICAL GARDENS, MUSEUMS, AND STATIONS.

A. R. Wallace—Prince of Monaco—Anton Dohrn—K. A. Möbius—E. A. W. Zimmermann—Treviranus—Illiger—J. A. Wagner—C. Pickering—Peter Pallas—Agassiz—Prince Bonaparte—Gloger—Ludwig K. Schmarda—von Sars—Oersted—Bartholomew—Frank Chapman—A. Dubois—T. H. Huxley—E. Forbes—R. Hall—R. F. Scharff—F. Beddard—A. Murray—C. J. G. Petersen—J. Schmidt—Karl Semper—Edward Cope—A. Heilprin—G. P. Moore—Migration of Animals—von Homeyer—A. Wetmore—A. Rauber—W. Roux—H. Spemann—Jacques Loeb—Yves Delage—Agassiz and Gould—Lydekker and Nicholson—C. Meyer—A. S. Woodward—von Zittel—T. Fechner—W. Wundt—Alexander Lehmann—Hans Przibram—Reports of Zoological Stations—U.S.A.—Louis Agassiz—W. K. Brooks—Wood's Hole—Pacific Grove and Jolla, California—N.Y. Zoological Station in British Guiana—Barro Colorado, Panama Canal Zone—Helgoland Observatory and other European Stations—Natural History Museums of the World and their Reports.

QUITE a few naturalists of importance have given much time to the study of *geographical biology* or to that division of it commonly known as *zoogeography*. Some general zoologists, like Alfred R. Wallace, have written extensively on the subject, and among those of that class not previously mentioned one must remember the oceanographic work done at the various marine stations, for example, that carried on by the Prince of Monaco. Among the earliest of these is the Aquarium at Naples, founded by Anton Dohrn (1840–1909). However, the *Zoologische Jahresberichte* and other publications, 1870 to date, of this famous scientific center are, like so many of its class, mostly taken up with studies of marine invertebrates inhabiting the plankton and other submarine areas. In consequence they find no place in the present compilation and Catalogue.

Among the pioneers in this field who studied local vertebrates as well as other forms of marine life was Karl August Möbius (1825–1908). His famous book *Die Fauna der Kieler Bucht*, 1865, is a model of its kind; he measured carefully the estuary that he describes so that he might report upon the exact positions and areas its marine animals and plants occupied. Indeed, Möbius may be said to be the father of modern ecology.

As pointed out by Victor Carus, in a study of general zoogeography one should bear in mind the comparatively early contributions to that subject by Eberhard A. W. von Zimmermann (1743–1815). In 1777 he published in Leyden *Specimen zoologiae geographicae, quadrupedum domicilia et migrationes sistens*, pp. 685, 4to, followed by a much enlarged German edition, 1778–83, Leipzig, in 3 volumes. These treatises were succeeded by several other contributions to the same subject, e.g. those of Rudolph Christian Treviranus (1779–1864), *Neue Untersuchungen . . . der thierischen Körper*, Bremen, 1835; J. C. W. Illiger (1775–1813) . . . *Prodromus systematis Mammalium et Avium*, Berlin, 1811, and other essays of similar import.

In 1873 N. A. Syevertzov (1825–85) wrote

an essay on the vertical and horizontal distribution of Turkestan animals.

Peter Pallas has given us a good idea of the distribution of faunal life throughout the old Russian Empire in his *Zoographia Rosso-Asiatica*, 1831, and in his other voluminous writings.

Johann A. Wagner (1797–1861) published *Die geographische Verbreitung der Säugethiere*, München, (?) 1845; (the American) Charles Pickering (1805–78), *The Geographical Distribution of Animals and Plants*, fol., 1854–76 (and 1863), Boston, one of the reports of the United States Exploring Expedition under C. Wilkes; Ludwig Karl Schmarda, *Die geographische Verbreitung der Thiere*, pp. 755, Wien, 1853; to which may be added, among many essays and treatises, the studies of Agassiz and Schlegel, who, in addition to registering and mapping the regions occupied by faunal species, have advanced hypotheses and theories to account for the areas and limits of habitat and migration.

An edifying example of zoogeographical treatment is Prince Bonaparte's geographical and comparative *List of Birds of Europe and North America*, 1838.

The early efforts of Michael Sars (1805–69) to do for submarine or oceanic depths what many others have since his time done for mountain flora and fauna in the establishment of zones of elevation as part of zoogeography, must not be passed in silence.

Sars' *Fauna littoralis Novegiae*, 1846–77, gives a fair account of his theories, and one might here point to the recent work of Frank S. Chapman in South America in which he successfully relates the occurrence of definite faunal species with well-defined altitudes, ranges of temperature, amount of rainfall, &c.

As early as 1833 C. W. L. Gloger wrote *Das Abändern der Vögel . . . durch Einfluss des Klima's, und bei den Europäischen Säugethieren.*

One of the comparatively early studies in ornithological zoogeography is seen in A. Dubois' *Conspectus systematicus et geographicus Avium Europaearum*, 1871. In the same year T. H. Huxley delivered his celebrated lecture on the *Geographical Distribution of Animals.*

Further examples of zoogeography based on physical conditions are several papers by Edward Forbes (1815–54), including the *Connexion between distribution of the Fauna and Flora of the British Isles . . . and geological changes*, Memoirs, I, 1846, that contain valuable data on that subject. Later he elaborated his theories (as to homozoic belts), the result of studies made on the zoological collections gathered during the *Voyage of the 'Herald'*, 1852–4, and from other expeditions of like character.

Another edifying account of avian distribution (in Australasia) is R. Hall's *Key to the birds of Australia and Tasmania with their geographical distribution*, 1899.

As exemplifying the many hypotheses advanced to account for faunal distribution Anders S. Oersted (1816–71) endeavored to prove that the coloration of fishes depends largely upon the depth zones which they inhabit. See his *De regionibus marinis*, 1844.

A most valuable and graphic guide to regional zography is Bartholomew's *Atlas of Zoogeography*, with numerous colored maps.

In the domain of local avian distribution a painstaking work is now (1930) being issued in parts by H. G. K. Molineux giving a *Catalogue of Birds and their Distribution in the Western Portion of the Palaearctic Region.*

A thoughtful work on zoogeography is R. F. Scharff's *European Animals; their geological history and geographical distribution*, 1907.

F. Beddard in 1895 wrote a *Text-book of Zoogeography* for the Cambridge *Natural Science Manuals.*

Andrew Murray has written a very important quarto (London, 1866) on the *Geographical Distribution of Mammals*, illustrated by 101 colored maps; and J. Palacký has done the same for Birds (1885) and for Fishes (1891).

Incidentally, J. A. Palmén wrote a controversial work entitled *Ueber die Zugstrassen der*

Vögel (1876) which was attacked by von Homeyer. During the discussion some light was thrown upon moot points on both the migration and distribution of bird-life. Shortly before this date Eugène Rey wrote his *Synonymik*, 1872, on practically the same subject.

One of numerous articles on local zoogeography is E. D. Cope's *Geographical Distribution of Batrachia and Reptilia in North America.*

In 1882 and 1892 M. A. Menzbír published (in Russian) his illustrated *Ornithological geography of European Russia.* Earlier still another observer, A. T. von Middendorff, published (1859) an account of the seasonal flights of Russian birds.

A. Heilprin's *Geographical and Geological Distribution of Animals*, issued with a colored map (1887), gives an excellent idea of faunal zoogeography. A different view will be found in R. F. Scharf's *History of the European Fauna*, 1928.

R. Lydekker has written on the distribution of game animals throughout the world. See, e.g., his *Great and Small Game*, 1901.

George P. Moore's study (1879) of the geographical range of 376 avian species of British Birds is of great interest.

A comprehensive study of faunal distribution is W. L. and P. L. Sclater's *The Geography of Mammals*, 1899.

Closely related to zoogeography is that important subject—the *migration of animals* (in particular the far and wide wanderings of birds), about which so much has been written from the earliest to the present times. This fascinating study is considered in almost all general zoological treatises; also in numerous monographs, a few of which are mentioned here. An enlightening work, among many, is that of E. F. von Homeyer, *Die Wanderungen der Vögel mit Rücksicht auf die Züge der Säugethiere, Fische und Insecten*, 1881, while the latest theories as to bird migration are fully discussed by Alex. Wetmore in his *Migration of Birds*, Cambridge, Mass., 1927.

A very good account of European bird migration is published by Ottó Herman in his *Recensio critica*, 1904.

Wells W. Cooke has written and published, mostly through the Bulletins of the Department of Agriculture, U.S.A. (1910–15), several very valuable monographs on avian zoogeography and migration throughout the United States including an account of their relations to migration in general.

Among *ecologists* are C. G. J. Petersen (b. 1863) who has investigated and reported on the animal life inhabiting the bays and inlets of his native Denmark; J. Schmidt (b. 1877), the authority upon the reproduction and life habits of that vertebrate mystery the eel. In like manner Karl Semper (1832–1893), professor at Würzburg, has reported upon the life conditions and distribution of many animals and their particular environments.

The teaching of *comparative biology* is now commonplace, but it was not when A. A. Gould and Louis Agassiz published the first edition of their *Outlines of Comparative Physiology* in 1855.

Among *paleontologists with vertebrate zoological leanings* was the celebrated American, Edward D. Cope (1840–97), who did such yeoman service in the cause of zoological science, most of it recorded in Smithsonian and State Departmental literature. Of these several are mentioned elsewhere, but one may recall his *Synopsis of Extinct Reptilia . . . of New Jersey*, 1868, and his editorial labors on the *American Naturalist.* Dr. Cope especially encouraged collaboration with other writers and a list of several conjoint titles will be found in this Catalogue.

Among the readable works on faunal paleontology are the *Manual* of Lydekker and Nicholson, 3rd edition, 1889; Christian Meyer's *Zur Fauna der Vorwelt*, in 4 vols., 1845–60, and, to jump across the Atlantic, the series of articles on *Fossil Vertebrates* extracted from the *Bulletins* of the American Museum of Natural History, the first volume of which was published in 1898.

One of the best modern textbooks on

paleontology is Johann H. Steinmann's *Einführung*, whose second edition was issued in 1907.

Paleontology is exhaustively treated, also, in Stromer von Reichenbach's two-volume *Lehrbuch*, 1909–12.

Another excellent manual is A. S. Woodward's *Outlines of Vertebrate Paleontology*, 1898. The other captions of this noted paleontologist should also be looked up in the present Catalogue.

An excellent and reliable popular life-history of extinct fauna is K. A. von Zittel's *Aus der Urzeit*, 1871–2. Von Zittel has also written an excellent *Handbuch der Paläontologie*, 1876–1893, with English translations from the original German amended by numerous collaborators and continued as a series of monographs until the present time. Altogether it is the most comprehensive, modern cyclopedia of extinct and fossil fauna so far attempted.

H. A. Nicholson (alone) has also given us an admirable and popular *Manual of Zoology* (seventh edition, 1887), in which extinct animals are described.

A popular but reliable work on vertebrate paleontology, written by Prof. Kirtley Mather of Harvard University, 1930, is entitled *Sons of the Earth*.

Within the province of vertebrate zoology the records of *experimental morphology* are not voluminous; plant life seems to be a more fertile field for the investigator. Still, we have the descriptions of August Rauber (1845–1917) who in his experiments with the vertebrate embryo sought to discover the laws that govern its development. Among numerous monographs he wrote *Ueber die Stellung des Hühnchens im Entwicklungsplan*, 1876.

The founder of the school of *evolutionary physiology* was Wilhelm Roux (1850–1924), born in Jena. He held professorial chairs at Innsbruck and Halle and worked assiduously to popularize his novel methods of zoological experimentation. His *Collected Essays* appeared in Leipzig, 1895.

Many of these biological experiments appear weird to one who is acquainted with advanced laboratory methods, but their value is unquestionable. One of the best known experimental morphologists of the day is Hans Spemann of Stuttgart (b. 1869), who has held several professorial chairs in German universities. The reports of his work are mostly contributed to periodicals.

Finally, let us not forget Jacques Loeb (1859–1925), graduate in medicine and *privat docent* at Würzburg, professor in Chicago University, and for several years attached to the Rockfeller Institute, who made many chemical and other remarkable experiments on the embryo. Frogs and sea-urchins were the chief material on which these experiments were carried on. An important work by Loeb is *The Mechanistic Conception of Life*. Yves Delage (1854–1920) reached results similar to those attained by Loeb but by different methods.

Several works on *vertebrate embryology* have already been mentioned. To these may be added T. L. W. Bischoff's volumes, 1852. See the titles listed in this Catalogue and on the cards of the Medical and Osler Libraries of McGill.

A treatise worth consulting is M. H. Rathke's *Entwickelungsgeschichte der Wirbelthiere*, 1861, that furnishes a good history of faunal embryology as known in the late fifties.

Until the middle of the nineteenth century *animal psychology* was far from an exact science. Writers in the past either attributed purely human concepts to animals or they, like Descartes, regarded them as mere automatons. Although it is not the purpose of this Introduction to go very deeply into the subject, it is proper to direct attention to the writings of Theodor Fechner (1801–87) and Wilhelm Wundt (1832–1920). The latter wrote, among other contributions to the subject, *Vorlesungen ueber . . . die Tierseele*, Hamburg, 1892. Several English and French writers have also contributed to the literature of comparative psychology.

The experimental side is discussed by Alfred

Lehmann (1858–1921), professor at Copenhagen, who holds that the chief consideration in comparative psychology is the extent to which the organs of the lower animals resemble those of man. He is best known by his *Grundzüge der Psycho-physiologie*, 1912.

Students interested in the subject will find a most useful contribution in H. Przibram's *Experimental-Zoologie*, four volumes of which (1907–13) are in the Blacker Library.

The establishment of *zoological stations* is closely connected with the literature of vertebrate zoology since the reports and journals published by them often furnish information of great value to students of that specialty.

In 1873 Louis Agassiz founded a public station on Penekese Island, Buzzard's Bay, Mass., and later Alexander Agassiz set up a private research laboratory at Newport, R.I. At about this period W. K. Brooks, Johns Hopkins University, became the founder of several stations in the Southern States, while in 1889 the U.S. Fish Commission opened its well-known research station in Beaufort, N.C. This was followed by the Marine Biological Laboratory at Wood's Hole, Mass., the large marine laboratory of the Brooklyn Institute at Cold Springs Harbor, L.I., and the U.S. Tortugas Zoological Laboratory under A. G. Mayer.

A very useful Biological Station for Research is maintained in Bermuda by Harvard University, published reports of which appear from time to time.

Stanford University has opened an important research and teaching station at Pacific Grove, Monterey Bay, Calif., and the University of California an equally famous marine station near La Jolla, Southern California.

Among other numerous (freshwater) zoological stations in America may be mentioned —as contributors to the literature of vertebrate zoology—the Illinois State Laboratory of Natural History at Havana, Ill., the station of Indiana University at Winona Lake, the U.S. station at Put-in-Bay, Lake Erie, and the laboratory-station at Sandusky, Ohio, founded by the State University. Of considerable importance, also, was the tropical station (now unfortunately abandoned) of the N.Y. Zoological Society under the care of C. W. Beebe, located 50 miles up the Essequibo River in British Guiana, and first utilized in 1915. The Compiler spent a winter there and can testify to its valuable activities.

Several useful laboratories and stations have been founded by various Canadian activities. Prominent among these is the Marine Station at Nanaimo, B.C.

Still better situated, perhaps, especially for the study of Central American fauna, is the U.S. Sanctuary at Barro Colorado in the Canal Zone. The London *Times* (Literary Supplement, March 13th, 1930) thus describes it in a review of Frank M. Chapman's *My Tropical Air Castle*, 1930:

'When the Gatun Dam was finally closed in the building of the Panama Canal, the Chagres river flooded about 165 miles of lowland and made islands of the hills; and the largest of these islands is Barro Colorado, roughly circular in shape and with a diameter of about three miles. In 1923 this island-hill was made a nature reserve by the Governor of the Canal Zone and was placed in charge of the Institute for Research in Tropical America, which is a branch of the American Government's National Research Council. Here, with the lavishness which the American Government is able to afford, there has been established a laboratory for the study of the fauna and flora of the region which comes enviably near to the ideal. In comfortable quarters specialists in various branches of biology live at their ease in an excellent climate where malaria is unknown, 450 feet above the level of the lake, with the unbroken primeval forest as their backyard, and unlimited ice and other luxuries punctually delivered to them from steamers passing through the Canal. If the world so far has heard little of Barro Colorado, it can hardly fail to hear very much more. As Dr. Chapman rather quaintly puts it, it is "on the threshold

of what should be an increasingly important existence". It is probable that, as the floods slowly rose, the wild things would retreat into the safety of the high ground; so Barro Colorado may have more than its natural stock of birds and beasts. Dr. Chapman catalogues some 230 species of birds which have already been observed; and the three-mile section seems to contain, with the single exception of the jaguar, all the larger mammals of tropical America, including puma, ocelot, tapir, two kinds of peccary and two of deer, four monkeys, two sloths, tayra, agouti, coati, etc. Flashlight photographs of most of these, self-taken by the use of trip-wires stretched across the trails or in other likely places, are an attractive feature of this volume. But Dr. Chapman is primarily an ornithologist and he has studied closely and tells interestingly of the nesting habits of the oropendolas, or American orioles, and the grackles and fly-catchers which are parasitic on them by nest-robbery; of the mating of parrots, the pluck and fighting qualities of humming birds and of the coloration of forest species and of the purple gallinule and jacana of the open sunlight. His experiments come near to proving that, among vultures, the so-called turkey-buzzard is guided to its food by scent much more than is generally supposed. He also gives the pathetic story of an attempt to tame a young of the notoriously untamable "howler" monkey, the old men of which have faces which are "the incarnation of every evil thought that has ever passed through the mind of man".'

In the development of economic ichthyology not only the United States and Canada but Great Britain and her colonies have established special laboratories for the study of piscine life and culture. Here may be mentioned the valuable Liverpool Sea-fisheries Laboratory. Many of these stations issue Reports, &c.

In Europe, also, many governments and societies have established schools, observation stations, and laboratories for zoological observation and research. Among them Germany and Northern Europe, at Helgoland; at Rossitten; Plon (founded 1892); at Kiel; on islands in the White Sea; at Kielkond; Oesel, founded 1909. Other stations are at Tromsö, Norway; at Kristineberg, well-known Swedish station; at Copenhagen, and at St. Andrews (Scotland). Further south we find laboratories developed at Plymouth; on the Isle of Man. In France there are stations at Coste in Brittany; at Wimereux; at Cette (Montpellier); at Saint-Vaast-le-Hogue; at Finistère (Roscoff); at Villefranche on the Riviera. In Italy there is a University Station at Naples; an Austrian station at Trieste; a Russian zoological station at Sebastopol; and at many other European points not mentionable here. These institutions contribute more or less to reports and other records on vertebrate fauna, works whose titles will be found in the body of the present Catalogue.

Lack of space permits the listing here of only a small number of the many European Museums of Natural History and of their publications—and the same may be said of similar institutions in America and elsewhere—but their literary output, so far as they touch vertebrate zoology, will be found in the appended Catalogue.

A useful guide to most North American institutions of this kind is F. J. H. Merrill's *Natural History Museums of the United States and Canada*, 1903.

Federal, Municipal, private and other Museums furnish their quota of literary material in vertebrate zoology. A number of these have been noted. Just here the Compiler draws attention to the admirable and useful publications issued by the Indian Museum of Calcutta, dating from 1881. These are all entered in the present Catalogue.

An admirable Natural History Museum, organized mainly by the late Herbert Robinson, publishing the Federated Malay States *Journal* (Kuala Lampar, 1905 to date), furnishes a typical example of many institutions of the kind in the Far East.

Another active institution is the Capetown

South African Museum, publishing its *Reports* and *Annals* since 1856.

To the long list of American Museums largely devoted to vertebrate zoology and its literature belongs the well-known Museum of Comparative Zoology (Harvard University) that since 1861 has issued a series of important periodicals, among them its *Bulletin* published from 1863 onwards.

The many zoological publications of the Smithsonian Institution, of the Philadelphia Academy of Sciences, the Museum of Vertebrate Zoology, University of California, and other American institutions of this kind will be found listed in the appended Catalogue.

The numerous publications of the New York American Museum of Natural History (founded in 1860) began with the *Annual Report* in 1870, since when the wonderful growth of the institution has produced much valuable periodical literature, listed in this Catalogue; and the same may be said of the N.Y. Zoological Society founded in 1895.

Of the several works devoted to the management of museums and zoological gardens in general (including the preparation of objects for the former) that of P. L. Martin, *Die Praxis der Naturgeschichte*, Weimar, 1869–82, is to be recommended.

The literature, generally annual reports, on vertebrates confined in *menageries*, *zoological gardens* and private collections, can have only a passing reference, although it is occasionally of importance. Confined animals furnish valuable information in comparative biology, especially in animal pathology, anatomy, physiology, and psychology—not to speak of classification—but ecological notes of caged fauna must always be viewed with some distrust since birds and beasts do not always behave in captivity as is their wont in the jungle.

CHAPTER XV

IMPORTANT TREATISES ON ICHTHYOLOGY FROM THE EARLIEST TIMES TO THE PRESENT.

Bashford Dean—Oppian—The Kerns—Belon—Salviani—Rondelet—Gesner—Bossuet—von Schonfeld—Paolo Giovio—Sonnini—Donovan—Seeley—Marcus Bloch—Georgius Fabricius—Gottfried Voigt—A. Günther—Goode and Bean—Aclogue—U.S. Expeditions—A. Guichenot—Julian Woods—E. R. Waite—D. H. Storer—G. D. Stead—T. N. Gill—Evermann—Eigenmann—David Starr Jordan—L. Vaillant—G. A. Boulenger—H. Sauvage—A. Valenciennes—Pieter Bleeker—Max Weber—E. Geoffroy Saint-Hilaire—S. J. Hickson—William Houghton—F. G. Aflalo—Charles Henry Gilbert—Murray and Hjort—Wm. Houghton—Siebold—J. Couch—Blanchard—W. Grote—W. Wright—W. Lilljeborg—Reuter and Mela—B. F. Fried—Day—Hutton and Hector—Weber and Beaufort—Agassiz—A. Griffini—F. Supino—W. P. Pycraft—Bertram—J. T. Jenkins—G. B. Goode.

TITLES in ichthyology, systematic, economic, and popular, are almost as numerous as those on mammalogy; certainly they exceed in number the tale of treatises on herpetology and amphibiology.

In particular one notices in a well-equipped library hand-colored folios and quartos illustrating piscine species that remind one of the voluminous and magnificently illustrated atlases on ornithology. Some northern and many tropical fishes lend themselves to ornate decoration. Attempts to reproduce their brilliant, glowing coloration by the use of gold and silver leaf, aluminium paint, and similar means are vain efforts to present the resplendent and iridescent magnificence of these scaly denizens of the deep. In addition to such considerations, the world-wide value of fishes as food secures the attention of both governmental and private activities with print, brush, and pencil.

Relatively few of the large number of ichthyologic works shelved in the McGill libraries can be mentioned here, but the attention of the student is called to the chief authorities on this important subject, especially to the complete *Bibliography of Fishes* by Bashford Dean and his collaborators.

Inasmuch as many valuable accounts of fishes from various parts of the world—particularly pelagic species—are to be found in the records of Voyages, numerous examples of these are given in this Catalogue, especially under *United States* headings.

Ancient literature has occasionally something to say worth repeating about the natural history of fishes. The English translation of Oppian's Greek poem (see Oppian's *Halieuticks of the Nature of Fishes and Fishing of the ancients* in five books, Oxford, 1722) well sums up all that was really known about Greco-Roman ichthyology. The rarer editions of Oppian, including the unique 1508 printing, are in the McGill collections.

Of the early treatises on ichthyology, Belon's well-known (French) monograph appeared at Paris in 1551. Two years later he published in Latin his chief work on Fishes, a French edition of which appeared in 1555. Belon's treatises are actually the first works on the subject that one may take seriously. They are genuine contributions to ichthyology and mark a decided advance over former writings on the subject.

Hippolyte Salviani (1514–72), Roman physician to several popes, wrote his *Aqua-*

tilium animalium historiae in 1554–8, a folio that was probably not compiled from Belon and, in consequence, lacks many of the scientific features of Belon's monumental treatise. Nevertheless, it forms one of the outstanding early contributions to systematic ichthyology.

Another important—perhaps the most important—ichthyologist of the sixteenth century was Guillaume Rondelet, another medical man, born in 1507, who described with great care and accuracy more varieties of Fishes than either Belon or Salviani. His masterpieces, *Libri de Piscibus*, &c., 1554, and *Universae aquatilium Historiae*, &c., 1555 (both folios) appeared four years before the versatile Gesner published his *Ichthyologia*, in which, by the way, much of Rondelet's observations are included. In all he catalogued and described 205 oceanic and 59 freshwater species; of the total 264, 239 are figured by woodcuts.

In 1558 F. Bossuet wrote a sort of supplement to Rondelet, entitled *De natura aquatilium carmen in universam Gul. R.* &c., Leyden.

Another physician, Stephen von Schonevelde of Hamburg, wrote in 1624 an important *Ichthyologia*, describing the fishes of his locality.

In addition to the many piscine volumes written by sixteenth-century doctors of medicine there were a few non-professional authors, among them Paolo Giovio who described (*De romanis piscibus libellus*, 1524–7) Roman fishes. His small work passed through several editions and was translated into Italian by C. Zancaruolo of Venice in 1560.

In passing, mention must be made of Georgius Fabricius, who wrote *Fishes of the Elbe*; of the Kerns (father and son) and of Gottfried Voigt who in 1667 published at Wittenberg his dissertation *De Piscibus fossilibus atque volatilibus*.

From the last-named title it will be seen that *animal fossils* early attracted attention; indeed their origin was commonly discussed by naturalists of the Middle Ages, most of whom agreed without a shadow of doubt that they were *plantés là* by a wise Creator for his own inscrutable purposes.

Felix Plater (*Observationes*, Basel, 1680) regarded the bones of a mammoth or aurochs found near Lucerne as those of a giant, but Ferrante Imperato (*Historia naturalis*, 1599) illustrated his work with drawings of fossils that he correctly surmised—as did others at that time—had been deposited in mountains that had risen from the primitive ocean. This Introduction does not pretend, however, to enter, except occasionally, into the fascinating field of piscine paleontology.

One of the most important of the Buffon 'suites' is that by T. S. Sonnini, the *Histoire naturelle, générale et particulière des Poissons*, 1802–5, Paris, in 14 volumes. It is admirably illustrated by colored plates and is regarded as a classic by systematists.

Reference has already been made to the zoological works of Edward Donovan (1768–1837), and one must not forget his valuable and extensive *Natural History of British Fishes*, in 5 vols., with col. pl., London, 1802–8.

A noteworthy and comparatively early treatise is Wm. Yarrell's *History of British Fishes*, in two volumes, 1835–6, followed by two editions in 1841 and 1859.

Another important ichthyologic treatise is H. G. Seeley's *Freshwater Fishes of Europe*, 1886.

An early systematic treatise on fishes is P. M. A. Broussonet's *Ichthyologia sistens Piscium descriptiones et icones*, with plates, a quarto issued in London about 1782.

A noted ichthyologist of the late eighteenth century was Marcus Bloch (1723–99) whose classic treatise on German and foreign fishes (*Naturgesch. der ausländischen Fische*, 1785–95) appeared as part of his voluminous *Allgemeine Naturgeschichte der Fische*, beautifully illustrated.

As a model presentation of such subjects one should read the *Fish of the Voyage of the Beagle*, by L. Jenyns.

Practically every scientific oceanic expedition investigated fishes, a typical example being the report by L. Vaillant on the ichthyology of the *Mission du Cap Horn*, 1888; the

account given of deep sea fishes by A. Günther in the *Report of the Challenger Expedition*; the record, by A. Valenciennes, of the fishes caught during the cruises of the 'Vénus', 'Bonite', 'Favorite' and similar French scientific expeditions.

Reference has several times been made to that monumental work, an annotated *Bibliography of Fishes* (1916–23), in three volumes, the joint work of three accomplished ichthyologists, the most important contributor being the first author, Bashford Dean. Every serious student of piscine life and every natural history library should be *en rapport* with this almost unique production.

Two Americans (George B. Goode and T. H. Bean) collaborated to produce a monograph, in two volumes, on *Oceanic Ichthyology*, well illustrated by 123 plates. A rare treatise is J. V. G. Smith's *Natural History of the Fishes of Massachusetts*, published in Boston.

A good, recent account of French ichthyology is given by A. Aclogue in his *Faune de France*, 1900.

As previously stated, the Federal government of the United States has from time to time dispatched expeditions that secured large collections of vertebrates, including fishes, many reports of which are listed and annotated in the present Catalogue, chiefly under the heading *United States*. Among these are accounts by well-known zoologists of the cruise of the 'Corwin' to Alaska and the N.W. Arctic Ocean in 1881; the International Polar Expedition to Pt. Barrow, Alaska, &c., 1885; Exploration of the Valley of the Amazon, 1853–4; U.S. and Mexican Boundary Survey, 1857–9; the U.S. Naval . . . Expedition to the Southern Seas, 1855; Expedition down the Zuni and Colorado Rivers, 1853; Pacific Railway Survey, 1855–9, and a dozen others in which the ichthyology of the expeditions was more or less completely treated.

One must draw attention to the admirable review of American economic ichthyology in *Fisheries and Fishery Industries of the United States* (1884–7), edited by G. B. Goode.

The fishes and reptiles of Chile are described and pictured by A. Guichenot in Claude Gay's excellent *Historia de Chile*, 1848–9.

In 1882 Julian Woods described the *Fish and Fisheries of New South Wales*, followed by E. R. Waite who wrote the *Marine Fish of New South Wales* in 1898.

D. G. Stead has written a report on the *Edible Fishes of New South Wales*, 1908, illustrated by 81 plates and a colored map, a supplement to his more important *Fishes of Australia*, 1906.

An early and important New England ichthyologist was David H. Storer (1804–91) whose reports on the fishes and reptiles of Massachusetts (1839) and his *Synopsis of the Fishes of North America* (1846) are well known to systematists.

Of the numerous contributions by T. N. Gill to American ichthyology his *Catalogue of the Fishes of the Eastern Coast*, 1873, and his contribution to Kingsley's *Standard Natural History* (1885) may be mentioned. Another American work of value is Girard's *Ichthyology of the (Mexican) Boundary*, illustrated by 41 plates, 1859.

A book, both popular and scientific, is C. Z. Southard's *American Trout*, 1928.

Here may also be noted Kilbourne and Goode's *Game Fishes of the United States*, 1879, with 20 colored plates.

The fishes of Peru are described and depicted in J. J. von Tschudi's *Fauna Peruana*, 1844–6.

Evermann and Radcliffe have also written on the *Fishes of the West Coast of Peru*, a work illustrated by 14 colored plates, 1917 (*U.S. Nat. Mus. Bull. 95*).

S. E. Meek's well-known *Freshwater Fishes of Mexico* was published in 1904, and C. T. Regan in 1906 contributed his section on Pisces to the *Biologia Centrali-Americana*, in which many Mexican species are described.

That well-known authority on American ichthyology, Carl H. Eigenmann (1863–), has written extensively on the fishes of South America; for example, his *Freshwater Fishes of British Guiana*, an elaborate report pub-

lished as a *Memoir* by the Carnegie Institute (Pittsburg) in 1912. Other titles of Dr. Eigenmann appear in the present Catalogue.

The fishes of North Borneo are described (in Whitehead's *Exploration*, 1893) by L. Vaillant, as are the marine and freshwater fishes of Malaysia by J. Johnstone and G. A. Boulenger. See *Fasciculi Malayenses*, 1903.

Madagascar is well represented in ichthyologic literature by H. Sauvage's classic contribution to A. Grandidier's *Histoire physique*, 1875–1900, of that island. Zanzibar was similarly treated (1866) by R. L. Playfair and A. C. L. G. Günther, with the aid of 21 colored plates.

R. T. Lowe's *Fishes of Madeira*, 1843–60, with 17 colored plates, should also be borne in mind.

The ichthyology of the Canary Islands was described by A. Valenciennes in 1836–44.

As one of a series published by Stanford University, E. C. Starke gives an account (1913) of the *Fishes of the Stanford Expedition to Brazil.*

Among accounts of local African fishes is the description of the catch made during the progress of the *Mission Chari-Lac Tchad, 1902–4*, under Auguste Chevalier. In the appendix the ichthyology of the expedition is treated by J. Pellegrin.

Between 1862–78 the celebrated Dutch ichthyologist, Pieter Bleeker, was engaged in bringing out his famous *Atlas Ichthyologique*, in nine folio volumes, whose splendid colored plates picture the fishes of the Netherland East Indies.

The freshwater fishes of the Indian Archipelago are carefully described by Max Weber in *Zoologische Ergebnisse*, 1894. He also wrote a similar account for Wichmann's *Nova Guinea*, 1906.

As early as 1803 there appeared a description by Patrick Russell of 200 species (and colored figures) of Indian fishes collected along the coast of Coromandel.

The student of East Indian ichthyology should not neglect the several descriptive catalogues issued by the Calcutta Indian Museum—especially those by A. Alcock.

Mention might here be made to a useful work, illustrated, Buchanan's *Fishes of the River Ganges*, 1822.

E. Geoffroy Saint-Hilaire (*Description de l'Égypte*, 1809–30) wrote a *Historie naturelle des Poissons du Nil, de la Mer Rouge et de la Méditerranée.* It may here be added that E. Rüppell also wrote (1828) an illuminating account of Red Sea fishes, illustrated by 35 colored plates.

In 1913 C. Alluaud described the fishes collected from Lake Victoria Nyanza.

In 1902 G. A. Boulenger wrote a well-illustrated work on the fishes of the Nile, and in 1907 contributed a list of the fishes in the River Gambia, West Africa.

A useful book for the advanced student is G. A. Boulenger's *Catalogue of the Freshwater Fishes of Africa* in four illustrated volumes, 1909–16.

Among the most famous of the world's herpetologists and ichthyologists stands A. C. L. G. Günther, a few of whose works will have the required mention here. His contributions to the literature on reptiles and fishes of the British Museum are well known, many of them listed in the appended Catalogue.

Of quite another class, though a very interesting one, is S. J. Hickson's *Fauna of the Deep-Sea*, 1894. To the same category belongs E. W. H. Holdsworth's *Sea Fisheries*, London, 1877.

Although of local importance only and one of many such books, W. Houghton's two volumes on *British Fresh Water Fishes*, 1879, give a very interesting and accurate account of the subject. The same may be said of a handsome, illustrated work with the same title by Sir Herbert Maxwell, 1904, one of the Woburn Library Series.

F. G. Aflalo has also contributed a volume (on *British Salt-Water Fishes*, 1904) to the Woburn Library.

In 1918, Neal Green brought out his instructive work on the *Fisheries of the North Sea.*

The most important nineteenth-century French treatise on fishes in general is the extensive work of Cuvier and Valenciennes, published 1828–49, the *Histoire naturelle des Poissons*, 22 vols., Paris.

Ten years later there appeared the first portion of the celebrated *Catalogue of Fishes* in the British Museum, London, 1859–70, by A. Günther, who in 1880 also wrote a useful and practical handbook, an *Introduction to the Study of Fishes*, Edinburgh. Still later there appeared several noteworthy contributions to ichthyology, among them Eigenmann's *South American Fishes*, San Francisco, 1893, and Dean's *Fishes, Living and Fossil*, N.Y., 1895.

These treatises were followed by one of our most extensive systematic monographs, Jordan and Evermann's *Fishes of North and Middle America* in 4 vols., 1896–1900, Washington. Dr. David Starr Jordan, who is easily the best known authority on ichthyology in America if not in the world, is the author of many works on that subject, among them a semi-popular volume, *Fishes*, 1907, N.Y. This veteran ichthyologist's best known systematic monograph is his *Genera of Fishes* issued 1917–20 in four parts, each separately indexed. This 'contribution to the stability of scientific nomenclature' records the history, bibliography, synonymy, &c. of ichthyology from Linnaeus (1758) to 1920. Another standard work of reference by Dr. Jordan is his *Catalogue of the Fishes of Japan*, 1913.

It was Boulenger who contributed an excellent essay on fishes in general to vol. vii of the Cambridge Natural History series. Three American authors about this time also published books that deserve special mention here —Ward's *Marvels of Fish Life*, N.Y., 1912, and Goode and Bean's *Oceanic Ichthyology*, N.Y., 1915, Goode already (in 1888) having written on *American Fishes*, N.Y.

Another important, general treatise on deep-sea ichthyology is Murray and Hjort's *Depths of the Ocean*, 1912.

Of the remarkable types found in Oceania and neighboring waters D. S. Jordan and A. Seale described in 1906 *The Fishes of Samoa*; A. Günther *Die Fische der Südsee* (1873–1910), and D. S. Jordan and B. W. Evermann, *Fishes of the Hawaiian Islands*, 1905. The American titles are mostly U.S. Government publications.

Turning once more to works on foreign and fossil ichthyology we note Houghton's (1879) *Freshwater Fishes of Great Britain*, London; Siebold's (1863) *Die Süsswasserfische von Mitteleuropa*, Leipzig; Couch's *Fishes of Great Britain*; *Süsswasserfauna Deutschlands* of Brauer, 1909; Blanchard (1866), *Les Poissons des eaux douces de la France*, Paris, and W. Grote's *Süsswasserfische von Mittel-Europa*, Frankfurt, 1909.

Between 1836–57 appeared the first edition of W. Wright's monumental *Skandinaviens Fiskar*, followed in 1892–5 by an edition in English. This treatise is among the best yet written, a beautifully illustrated work on North Sea fishes.

In 1881 was also published an important work on Scandinavian pisces by W. Lilljeborg —*Sveriges och Norges fiskar*—in three volumes.

An outstanding treatise on the fishes of Finland, in fact the standard work on the subject, is Reuter and Mela's *Finlands Fiskar* (1883–93, 12 parts so far issued), with the text in both Swedish and English.

Still later (1892–5) is the excellent three-volume monograph of B. F. Fries *et al*, entitled *Skandinaviens Fiskar*.

Others are Day (1889), *Fishes*, in *Fauna of British India*; Hutton and Hector's (1872) *Fishes of New Zealand*, and a magnificent monograph in five volumes by Weber and Beaufort (1911–28) on the *Fishes of the Indo-Australian Archipelago*.

Of many works on fossil fishes, Agassiz (1833–44) wrote *Recherches sur les poissons fossiles*, 3 vols., and supplement, and Newberry (1890) *Paleozoic Fishes of North America*, Geological Survey, Wash. Sir Richard Owen, the famous paleontologist, wrote an informing *Descriptive Catalogue of Fossil Pisces in*

the Museum of the Royal College of Surgeons, 1854.

The celebrated Alphonse Guichenot contributed many useful treatises to his almost universal ichthyology, among them the *Reptiles and Fishes of Cuba*, 1843; of *Chile*, 1848; of *Abyssinia*, 1851, and of *Réunion* in 1862—all of these titles being listed in this Catalogue.

A useful, systematic, two-volume *Catalogue of the Fishes of South Africa* was published in 1927 by A. K. Barnard.

Much earlier, A. Valenciennes wrote on the fishes of South America, in the *Voyage dans l'Amérique meridionale*, 1835–47.

In 1870 J. C. Weber issued the second edition (amended by Kranz) of his small manual, *Die Fische Deutschlands u. der Schweiz*, illustrated by 67 colored plates.

The Pisces of Siebold's *Fauna Japonica* (1842–50) furnishes one of the best accounts of Japanese ichthyology, although in America D. S. Jordan's *Catalogue of the Fishes of Japan*, Tokyo, 1913, is the standard authority.

Achille Griffini published in 1911 a popular work on fishes, amphibia, and reptiles, well illustrated.

In 1916 appeared Prof. F. Supino's systematic *I pesci d'acqua dolce d'Italia*, illustrated by colored plates.

Of popular works on general ichthyology the Compiler recommends W. P. Pycraft's *Story of Fish-Life*, 1901.

For a full account of American *fish culture and protection* as well as of the uses of fish for food and other commercial purposes the literature supplied by the U.S. Department of Agriculture is recommended.

In Great Britain many volumes have been written on economic ichthyology, one of the popular titles being Bertram's *Harvest of the Sea*, London, 1865; another, McIntosh and Masterman's *British Marine Food Fishes*, 1897; still later a valuable monograph by J. T. Jenkins, *The Sea Fisheries*, 1920.

Probably the most important (English) source of nineteenth-century literature on fishes in general followed the London meeting in 1883 of the Great International Fisheries Exposition. In vol. iii, p. 1170, of the *Catalogue of the British Museum* (*Natural History*) is published most of the papers contributed to that meeting. The advanced student of New World ichthyology will look over with profit the list of papers by G. B. Goode and other American writers.

CHAPTER XVI

SELECTED TITLES FROM THE LITERATURE OF HERPETOLOGY AND AMPHIBIOLOGY.

Charles Owen—von Rosenhof—J. G. Schneider—J. D. Schoepf—Jacob Sturm—Lamouroux and Bory de Saint-Vincent—W. Swainson—V. Kollar—C. Girard—G. A. Boulenger—J. E. Gray—E. D. Cope—L. Stejneger—H. C. Bumpus—E. Coues—H. C. Yarrow—Hans Gadow—Lydekker—G. Tornier—J. Van Denburgh—Ditmars—Reese—J. E. Holbrook—D. Humphrey—S. P. Woodward—F. A. Lucas—von Zittel—De Kay—W. H. Smith—Suckley and Cooper—A. S. Woodward—Victoria County Histories—Westell—Geo. G. Scott—C. H. G. von Heyden—R. P. Lesson—Temminck and Schlegel—T. Bell—Guichenot—Geoffroy Saint-Hilaire—Vaillant and Grandidier—F. M. Fitzsimons—Nieden and Sternfeld—Siebenrock and Boettger—Dürigen—E. Schreiber—A. Günther—Ramon de la Sagra—J. E. Gray—J. L. G. Krefft—Gabriel Bibron—Bocourt and Duméril—J. B. Spix—L. G. Andersson—Baron Tschudi—W. L. Sclater—Patrick Russell—A. Aclogue—J. F. M. Réguis—L. Stejneger—Siebold—F. Mocquard—Rooy and van Kampen—L. Méhelÿ.

IT may here be noted that the term *amphibia* was originally employed by Linnaeus to denote the Class of the Animal Kingdom comprising crocodilia, lacertilia, tortoises, turtles, ophidia, salamanders, and frogs. Indeed, some editions of his *Systema Naturae* add to that list certain groups of fishes. Although this view has been greatly modified by later observers and the Compiler knows that Huxley and others insist upon the distinctness of the Class Amphibia, yet it is much more convenient in the present compilation to adopt the plan of Günther. In his celebrated *Catalogue* he treats amphibia as one of the four orders of Reptilia; accordingly the Compiler will regard the titles on Amphibia as a part of herpetologic literature. In fact they are so treated in many monographs.

Ancient and early medieval literature about reptiles—especially 'serpents'—seems bound up with accounts of animals in general, references to which have already been abundantly made. Most of these primitive discourses, especially on 'serpents', are largely mythical matter, as will be found in Charles Owen's *Essay on Snakes*, 1748.

An early writer was Antonio Vallisnieri whose *Istoria del Camaleonte Affricano, e de varj Animali d' Italia*, 1715, illustrated by 13 plates, furnishes excellent descriptions of a chameleon and other reptiles.

Roesel von Rosenhof's *Historia naturalis Ranarum*, with a preface by A. von Haller, and 24 plates, 1758, is generally regarded as an excellent piece of work and rated among the early classics of amphibiology.

To the same category belongs J. G. Schneider's *Naturgeschichte der Schildkröten*, 1783, and 2 colored plates, although J. D. Schoepf's *Historia Testudinum*, 1792, with 34 colored plates, adopts a more modern literary dress.

In 1799–1805 Jacob Sturm described and pictured German amphibia in his *Deutschlands Fauna*.

In 1828 Madame S. Lamouroux published her *Iconographie des Reptiles*, with text by Bory de Saint-Vincent.

W. Swainson made a study of monocardian animals (2 vols., 1838–9) in which the Reptiles of the World occupy a prominent place.

A useful account of amphibian life is given in V. Kollar's *Bildliche Naturgeschichte*, 1853–7.

At the outset, attention is again drawn to the many valuable systematic accounts of the reptiles and amphibians of the world in reports of Voyages and scientific Expeditions, both governmental and private. Many of these herpetological titles are noted below the major headings of Voyages in the Catalogue, and should not be forgotten by the research student. For example, a very elaborate account of American herpetology is given by C. Girard under *United States. Voyages, Wilkes Expedition*, 1845–76.

The chief scientific, i.e. systematic writers in English on reptiles and amphibia are G. A. Boulenger, J. E. Gray, and A. Günther of the British Museum, E. D. Cope and L. Stejneger of the Smithsonian Institution, and R. L. Ditmars of the New York Zoological Society. Their works (listed in the accompanying Catalogue) give a good account of the whole subject and should be consulted by all students of this group.

One may begin the modern list by mentioning the monographs of John E. Gray (with Sowerby and Lear), *Tortoises, Terrapins and Turtles*, folio, 1872, and L. Stejneger, *Herpetology of Porto Rico*, 200 ill., 1904. The batrachia and reptilia of the *Standard Natural History* (see Kingsley, J. S.), 1885, are amply discussed by H. C. Bumpus and E. D. Cope, and in *An Expedition to the Valley of the Great Salt Lake of Utah* by Baird and Girard. See under H. Stansbury, 1852.

A valuable contribution to mid-American herpetology (including amphibia) is furnished by H. C. Yarrow and E. Coues in the *Federal Report, Survey West of the Hundredth Meridian*, 1875.

Hans Gadow, *Amphibia* (*Cambridge Natural History*, vol. viii), 1901; Lydekker and others, *Amphibia*, London, 1912, and Dickerson's *The Frog Book*, 1906, N.Y., are semi-popular works of considerable importance. Valuable contributions to fossil amphibia (as a section of general paleontology) form part of H. R. Knipe's *Evolution in the Past*, London, 1912.

As has been pointed out, there are many works on general zoology that contain admirable essays on herpetology. One of these is Ehrenberg's *Symbolae Physicae* whose supplement (1899) has excellent, illustrated chapters on reptiles by G. Tornier.

In vol. v of *Occasional Papers*, California Academy of Sciences, 1897, J. Van Denburgh describes the reptilia of the Pacific Coast of North America.

Treatises and periodical publications on reptilian and amphibian forms are not as extensive as might from the interest of the subject be expected. However, recent field work on world species has occupied the attention both of systematic paleontologists and pure zoologists; there has in consequence been a great increase in the literary output dealing with prehistoric reptiles.

One of the noteworthy reviews of general amphibiology and herpetology is to be found in F. Werner's edition of *Brehm's Tierleben*, 1912, under *Lurche und Kriechtiere*.

A valuable author's excerpt from the *American Naturalist* (1925) is G. K. Noble's *Evolution and Dispersal of Frogs*.

One of the best early treatises on British reptiles is Bell's *History*, 1839.

Of early comprehensive monographs, that of Duméril and Bibron (*Erpétologie générale*, 1834–54, Paris) is to be especially recommended. Another celebrated work of very great local value is Fayrer's *Snakes of India*.

J. Verluys, on *Amphibia* (vol. i, *Handwörterb. d. Naturwiss.*, 1912), gives a good account of the subject; so does E. Perrier, in his *Traité de Zoologie*, vii, 1925, while O. Abel in *Die Stämme der Wirbeltiere*, 1919, deals scientifically with developmental herpetology and amphibiology as part of vertebrate zoology.

A very important contribution to the literature of modern herpetology is the work of Bronn, 1866, *Reptilia*, a section of his monumental *Klassen und Ordnungen des Thierreichs*. Of still greater value for advanced students are Boulenger's *Catalogue of the Reptiles in the British Museum, London*, 1889–96; Lydekker's companion volume (1890), *Catalogue of the*

Fossil Reptiles and Amphibia in the British Museum; E. D. Cope's *Crocodilians, Lizards and Snakes*, Washington, 1900, as well as his (brief) *Analytical Table of Genera of Snakes*, 1886.

Well written and dependable books of a more popular character are Ditmars' *Reptiles of the World*, N.Y., 1910 and 1927; the same author's *Reptile Book*, N.Y., 1914, and Reese's *Alligator and its Allies*, 1915. To these may be added S. W. Williston's *Water Reptiles of the Past and Present*, Chicago, 1914, and Boulenger's *Reptiles and Batrachians*, N.Y., 1915.

Among other (American) writers may be mentioned John Edwards Holbrook (1796–1871) who wrote a well-known *North American Herpetology*, &c., in 5 vols., with col. ill., 4to., Phila., 1842, and other treatises on (local) reptilia, such as David Humphrey's (1804–91) *Report on the Ichthyology and Herpetology of Massachusetts*, 1839.

Publications dealing with the extinct and fossil forms interesting to both zoologists and general readers, are A. S. Woodward's *Vertebrate Paleontology*, London, 1898; F. A. Lucas' *Animals before Man in North America*, N.Y., 1903, and K. A. von Zittel's *Text Book of Paleontology* (English translation by C. R. Eastman, 2 vols., N.Y., 1903).

Numerous examples of reptilian fossil deposits discovered in Europe are described in literature, a good example being the quarto volume of E. Fraas, Stuttgart, 1896, *Die Schwäbischen Trias-Saurier*. The British Museum publications, especially those of Richard Lydekker, elsewhere mentioned, furnish a complete study of fossil reptilian and amphibian world forms discovered prior to 1890.

Many of the local faunal histories of North America describe the reptiles and amphibia of a particular locality. Perhaps the most elaborate of these is found in De Kay's *Natural History of New York State*, 1842–4. Another, less valuable but furnishing a report on Mid-West American herpetology and amphibiology (in Ohio), is made by W. H. Smith.

In 1859–60 Suckley and Cooper published their reports, in three parts, of the fauna collected during 1853–60 in Washington and Oregon territories, Minnesota, Nebraska, Kansas, Utah, and California. Much of this valuable material was also utilized for other publications, listed in this Catalogue. Part III contains most of the zoology, of which J. G. Cooper describes the reptiles.

A small volume containing much information on vertebrate paleontology is A. Smith Woodward's *Guide to Fossil Reptiles, Amphibians and Fishes*, 1910.

The reptiles and amphibia of the British Isles are generously described in various treatises and manuals but especially in county publications and records of meetings (Dublin, Sheffield, *et al*) of the British Association for the Advancement of Science. As outstanding sources of information for the first of these see the *Victoria County Histories*. There is, however, in these local faunal accounts a large amount of duplication.

Several of the *Guides* to the British Museum (Natural History) deal with amphibia and reptiles in a scientific fashion. Among them is a volume, very useful to the advanced student, by Richard Lydekker, 1913.

A recent, small, popular work on British Reptiles and Amphibia is W. P. Westell's contribution to the *Abbey Nature Books*, (?) 1927.

For an up-to-date study of the biologic relations of reptiles and amphibia there is no better textbook than George G. Scott's *The Science of Biology*, 1930, in which the morphology, histology, phylogeny, physiology, classification, &c. of these sub-classes meet the wants of the advanced student.

At this juncture one may refer to G. A. Boulenger's well-known *Tailless Batrachians of Europe*, 1897, illustrated by 24 colored plates—one of the Ray Society publications.

The batrachians and reptiles of Malaysia are well described by G. A. Boulenger in Annandale and Robinson's *Fasciculi Malayenses*, 1903.

In 1832 R. P. Lesson inscribed the herpe-

tology records of a *Voyage aux Indes-Orientales*, a valuable addition to our knowledge of the subject.

In 1842 appeared the *Reptiles of the Voyage of the Beagle*, an admirable scientific treatise by T. Bell.

Among other early (and unimportant) contributions to herpetology is the little book by Baron Clermont, *A Guide to the Quadrupeds and Reptiles of Europe*, 1859.

A noteworthy contribution to the herpetology of North Africa was made by Guichenot in a *Voyage en Abyssinie*, 1847–51. The same author (with C. H. Jacquinot) described the reptiles and fishes of the voyages to the South Pole of the 'Astrolabe' and the 'Zelée', 1841–54.

As part of his several contributions to the monumental *Description de l'Égypte*, 1908–30, E. Geoffroy Saint-Hilaire wrote several sections on the reptilia of the Nile region.

The herpetology of Madagascar is well described by L. Vaillant and G. Grandidier in A. Grandidier's *Histoire physique*, 1875–1900, of that interesting island.

C. H. G. Heyden's *Atlas (1827) of the Reptiles of North Africa* forms part of the illustrations of E. Rüppell's *Reise*.

An excellent monograph on the *Snakes of South Africa* appeared in 1912 from the pen of that noted naturalist, F. W. Fitzsimons.

A quite recent review of the amphibia and reptiles of Central Africa will be found under the caption Adolf Friedrich of Mecklenburg, by F. Nieden and R. Sternfeld (1912).

The herpetology and amphibiology of the Nile region were well described and pictured in 1898 by John Anderson.

F. Siebenrock and O. Boettger give a good account of the amphibia and reptiles of Madagascar and East Africa in A. Voeltzkow's *Reise in Ostafrika*, in 1903–5.

P. N. Van Kampen describes the amphibia of the Indian archipelago, collected by Max Weber in 1890.

The amphibia and reptiles of Middle Europe are well described and depicted by Br. Dürigen under the caption *Deutschlands Amphibien und Reptilien*, 1897.

Another valuable and systematic treatise, but more comprehensive, is E. Schreiber's *Herpetologia Europaea*, 1875.

A notable (French) edition of G. A. Boulenger's work is *Les Batraciens et principalement ceux d'Europe*, 1910.

A good description of local South American amphibians and reptiles is also given by G. A. Boulenger in E. Whymper's *Travels amongst the Great Andes*, 1891.

The reptilia and amphibia of the Americas are well represented in literature. In addition to titles already quoted one of the best accounts of these Mexican and Central American classes is furnished by A. Günther in Godman and Salvin's *Biologia Centrali-Americana*, 1879.

A good account of Cuban reptilia is given in vol. iv of Ramon de la Sagra's *Historia física*, 1843. See, also, under the captions *United States* in the appended Catalogue, where many accounts of American reptilia and amphibia are given.

Of the rather sparse literature of *Australian* herpetological literature mention may be made of J. E. Gray's *Catalogue* of reptiles and amphibia to be found in Sir George Grey's *Journals*, published in 1841; also in his and A. Günther's reports on the same animals in the Voyage of the 'Erebus' and 'Terror'.

The reptiles and amphibia of Central Australia have been systematically dealt with in the *Report of W. A. Horn's Scientific Expedition*, 1896.

J. L. G. Krefft in 1869 published an admirable essay on the *Snakes of Australia*. A good account of the reptiles and amphibia of New South Wales is contained in the *Handbook* of a meeting of the British Association for the Advancement of Science at Sydney in 1914.

The reptiles of South America as known at the date of publication (1847) are well described by the naturalist-explorer Gabriel Bibron in his several expeditions, including the famous *Voyage dans l'Amérique méridionale* (several times referred to here), that of 'La Bonite', &c.

P. Brocchi has also (1882) published an *Étude des Batraciens de l'Amérique Centrale* in 4to.

An important paper on the reptiles and batrachia of Mexico was written in 1870 by Bocourt and Duméril as part of the *Mission scientifique au Mexique*. J. B. Spix wrote in 1824 several monographs on the batrachians and serpents of Brazil.

L. G. Andersson listed the reptiles and batrachians of southernmost South America in 1899–1907, collected by the Swedish Expedition to the lands about the Straits of Magellan.

The reptilia of Peru are pictured and described in Baron Tschudi's *Fauna Peruana*, 1844–6.

The reptilia and batrachia of India, Burma, and Ceylon are well described and depicted by G. A. Boulenger in the classic (Blanford's) *Fauna of British India*, 1888.

A reference list of the Reptiles and Batrachia in the (Calcutta) Indian Museum by W. L. Sclater will also be found very useful. In 1872 appeared the first edition of Sir Joseph Fayrer's classic *Thanatophidia*, an interesting account of the poisonous snakes of India.

In 1864, the Ray Society reprinted A. Günther's important *Reptiles of British India*.

More than half a century earlier Patrick Russell wrote two monographs, well-illustrated, 1796 and 1801, on *Indian Serpents*.

French amphibia and reptilia are well described in A. Aclogue's *Faune de France*, 1900.

A systematic account of the reptiles of Indo-China is given as *Decades Zoologiques* (1905–7) in the report of the *Mission Scientifique*, published at Hanöi.

The batrachians and fishes of Southern France have been described by J. F. M. Réguis in his *Essai sur l'histoire naturelle de la Provence*, &c., 1882.

The reptilian life of Japan is best described and pictured (in its modern aspect at least) by Siebold in his large and classic *Fauna Japonica*, and by L. Stejneger's *Herpetology of Japan and Adjacent Territory* (1907), the latter a profusely illustrated monograph of 577 pages.

The amphibia and reptiles of North Borneo have been fully described by F. Mocquard in Whitehead's *Exploration*, 1893, the same task having been undertaken by N. de Rooy and P. N. van Kampen for Wichmann's systematic travelogue, *Nova Guinea*, 1906.

A general report on Asiatic amphibia and reptiles was also furnished by L. Méhelÿ from collections made during Zichÿ's *Forschungsreise*, 1901.

The reptiles and amphibia of North China are partly described in Clark and Sowerby's report on the Clark Expedition of 1912.

In 1925 began a very important series, entitled *Beiträge zur Fauna sinica*, the first four parts of which are devoted to a study of Chinese reptiles.

A systematic work, part of Cornalia's *Fauna d'Italia*, is F. E. de Betta's *Rettili ed Anfibi*, 4to, 1874.

Still earlier (1777) Cetti wrote his *Anfibi e Pesci di Sardegna*.

A work previously mentioned is a small but useful and well-illustrated treatise, Achille Griffini's (first printing in 1911) *I pesci—gli anfibi—I rettili*, in which the essentials of universal herpetology are briefly discussed.

Along with other vertebrates, Bavarian amphibia are fully described in Reider and Hahn's *Fauna Boica*, 1831.

CHAPTER XVII

ORIENTAL LITERATURE ON VERTEBRATE ZOOLOGY — CODICES, PRINTED TREATISES, AND LITHOGRAMS IN PERSIAN, ARABIC, AND OTHER ISLAMIC LANGUAGES — SANSKRIT AND SINHALESE WRITINGS — CHINESE AND JAPANESE LITERATURE ON ZOOLOGY.

Zakariya Qazmini—Al-Jāhiz — Nizamu'd-din — Faras-nāma — 'Ilaju'l-fil — Damiri — Uthman Beg—Raja Rajeswar Rao—Doki Nandan—Baz-nama—Tuhfatu's-sa'idin—Tibb-i-aspān—Chinese books on Zoology—Japanese Zoological Literature.

REFERENCES have been made elsewhere in this volume to the rather extensive collections of Arabic, Persian, Sanskrit, Hindustani, Bengali, Sinhalese (in the form of palm-leaf codices or olas), Chinese and other oriental works on zoology in the McGill libraries. The notes and evaluations to be found in the appended *Catalogue raisonné* are intended to furnish some proof that the Far Eastern peoples were not indifferent to the study and attractions of natural history, and that while oriental literature on that subject is relatively small it does exist. From the roster of Persian, Arabic, and Hindustani manuscripts, lithograms, and printed books, collected for the Blacker and E.S.W. libraries during the Compiler's three years in India and Kashmir, he selects the following: *'Aja'ibul-makluqat* (Wonders of Creation) by Zakariya Qazmini, composed during the thirteenth century. A Hindustani translation from the Persian or Arabic. Treats of Cosmography and Natural Science, including General Zoology. Lucknow, 1912. Large 4to. Pp. 696. Illustrated in color.

Besides this (lithographed) copy, there are in the McGill libraries four other copies or editions of this the best known medieval Mohammedan work on zoology.

A very important and fundamental *Book on Animals* was written in Arabic by Al-Jāhiz in the ninth century from which quotations were made by subsequent Islamic writers, including Qazmini, and by some medieval Christian authors. See the annotation of this work in the appended Catalogue.

Aqlu'sh-shu'ur, by Nizamu'd-din, composed about 1873. In Hindi; naturalistic encyclopedia. Lucknow, 1914. Pp. 490.

Danish-nāma-i-Ala'i, by Avicenna, beginning eleventh century. Persian natural philosophy. Haydarabad, 1891. Pp. 7+137+176. (Rare publication.)

Faras-nāma, by Muhammad Abdu'l-lah, end of nineteenth century; in Hindustani; four books, on the horse.

Faras-nāma, a different version of the preceding work, in Hindustani, also in four books.

'Ilaju'l-fil, by the same writer; in Hindi; diseases of the elephant. Lucknow, 1912. Pp. 184.

'Ilaju'l-fil, also a different version of the same title, *supra*. Lucknow, 1899. Pp. 199.

Hayatu'l-haywan, by Damiri; written A. H. 1372, in Arabic; zoological encyclopedia. 2 vols. Tehran, 1868. No pagination. (Rare.)

Ilmu'l-haywanat, by Uthman Beg, in Arabic; modern treatise on zoology. Cairo (?), 1886. Pp. 775.

Tashrihu'l-faras, by Raja Rajeswar Rao of Haydarabad, in Hindustani; on breeds of horses. Lucknow, 1906.

Makhzan-i-ilaj-i-haywani, by Doki Nandan. in Hindustani; composed *ca.* 1899; Indian veterinary art; Meeruth, 1900. Pp. 137.

Zinatu'l-khayl, by Mahdi Hasan, about

1835; versified treatise on horses, in Hindustani. Cawnpore, 1907. Pp. 220.

Faras-nama-i-Rangia, by Rangin Sa'adat Yar Khan of Delhi, died 1835. Versified tract on horses. Cawnpore, 1886. Pp. 24.

Sayd-gah-i-Shawkati (or *Baz-nama*), by Yar Muhammad Khan Shawkat, composed about A.D. 1883, in Hindustani. On falconry and birds. Rampur, 1884. Pp. 338.

Tuhfatu's-sa'idin, by Abid b. Husayn Ansari, 1870, in Hindustani, on the lawfulness of the flesh of different animals for food. Lucknow (?). 1870. Pp. 16.

An anonymous but well written rubricated Persian manuscript (*ca.* A.D. 1780)—is the *Baznāma*—on the diseases of the falcon and their treatment. In this short treatise a description of the birds is briefly given. This rare manuscript was discovered by W. Ivanow in Hyderabad.

A reference to the annotated Catalogue under *Faras-nāma* will furnish a fair account (manuscript, lithograms, prints) of the horse—favorite of Indian chieftains, especially of the Moslems—his varieties, his diseases with their medical and surgical treatment; excellent colored drawings, in Persian, Arabic, Hindi, &c.

A rare anonymous Hindustani manuscript (*Tibb-i-aspān*) gives further information on the same subject. Another, *Khayl-nama*, transcribed in 1829, also gives a description of equine varieties. A versified book of the horse, 12mo, red-and-black letter Persian manuscript, dated 1245, A. H., details the charms and sings the praises of that animal.

Still another manuscript poem in Persian (*Husami*) on the same subject, a fine sample of calligraphy, possesses some scientific value.

Two editions, 1873 and 1888 (Hindustani lithograms) on Animals and their diseases—*'Ilaju'l-baha'im*—furnish an account of Indian animal pathology and the treatment of faunal disease in general.

According to Dr. Resillac-Roese, Librarian of the Gest Chinese Research Library of McGill, there are comparatively few individual works on zoology in Chinese literature, as can be ascertained from the great Chinese Catalogue *Ssû k'u ch'uan she tsung mu*, chuan (chapter) 115, 116, tome IV, vol. 32, original edition, A.D. 1790. Nearly all the material on zoological subjects is found in encyclopedias, dictionaries of terms, some historical works, and gazetteers of provinces. Important western works on Chinese zoology will be found in Henri Cordier's *Bibliotheca Sinica*, vol. i, pp. 171–188, Paris, 1881.

Scientific works on zoology in Japanese before 1860 are quite rare. They are represented in the Blacker and E.S.W. Libraries mostly by artistic but not very reliable pictures of native faunae—birds in particular—with, in a few instances, descriptive text.

During the past fifty years, however, Japanese naturalists have published numerous treatises and periodicals on their own and general zoology quite equal to European and American productions.

Most of the latter titles appear in the appended Catalogue.

The Compiler, during a residence of two years in Ceylon, was able to collect and present to many libraries, the *Bibliotheca Osleriana* in particular, several hundred Olas, curiously bound manuscripts beautifully written in Sinhalese on prepared leaf-strips of the Talipot Palm. A number of these are monographs on zoological subjects, plainly though rudely illustrated. They are now deposited in the Blacker and E.S.W. Libraries of McGill, and are among the rarities of those collections. Altogether these leafy codices testify to the high state of civilization enjoyed by Buddhistic Ceylon during that intellectual darkness of Europe called the Middle Ages.

Dr. Andreas Nell, of Kandy, at the request of the Compiler, gave a full description and history of the Ola in the *Annals of Medicine* for 1929, while in the same periodical (1926, No. 8, pp. 435–55) the Compiler has furnished an account of Sinhalese literature in its relations to Medicine and Comparative Zoology.

CHAPTER XVIII

PERIODICALS AND SERIALS ON VERTEBRATE ZOOLOGY.

Importance of Periodical Literature in Zoologic Study—Catalogue of Zoological Society—Zoological Record—Annals and Magazine of Natural History—Ornithological Periodicals, General and Local—London, Edinburgh, and Dublin Magazine—Publications of the various Royal Societies—The Linnean Societies and their periodicals—Proceedings of Local Naturalists' Societies and Clubs—The numerous Publications of French Sociétés des Sciences Naturelles—Spanish Zoologic Periodicals—Italian Periodicals on Zoology—German Periodicals issued by many Naturforschende Gesellschaften, Naturvereine, &c.—Swiss Periodicals on Vertebrate Zoology—American Magazines, Serials, and Reports issued by Societies and Institutions—The Transactions of British, American, French, and German Associations for the Advancement of Science—Proceedings of International Congresses and Conferences on Zoology and its Branches—Journals and Serials published in Holland, Belgium, Scandinavia, and Russia—Local Periodicals and Serials of the Old and New World—Canadian Periodicals—Local Journals on Zoology published in the United States, Middle and South America—African and East Indian Periodicals—Australasian Magazines, Serials, and Journals—Japanese Periodicals—Journals devoted to Vertebrate Anatomy, Development, Behaviour, University Societies and Departments, Embryology and other specialized Subjects.

ON several different pages of this Introduction the Compiler has, in a general way, spoken of the extreme importance of journals, magazines, serials, &c., in a study of faunal literature. These form, indeed, the very foundation of our knowledge of the subject. Much of the output constitutes a *record* of the work done in laboratories, museums, and other institutions, partly or wholly devoted to zoology; hence it is specially a contribution to systematic zoology and it also furnishes the latest and most scientific news in all departments of natural science. The number of these periodicals has enormously increased in late years and it is difficult for even the best equipped library to keep pace with them and to preserve full sets of their many volumes. The McGill libraries have, however, striven to make their collections as complete as possible, and it is now proposed to furnish a list (comparatively a small one) of the most important zoological periodicals out of the hundreds of those now on the tables and shelves of the McGill libraries.

The Compiler once more directs particular attention to the extremely valuable geographical catalogue of periodicals on zoology published in the *Catalogue of the Zoological Society*, the fifth and last edition having been issued in 1902. If that indispensable volume were brought up to date (1930) it would form a ready and unusually helpful source of information that has now to be culled, often with much labor, from such ponderous tomes as the *Union List of Serials*, whose very completeness as a record of *all* scientific periodicals makes it *for our purpose* difficult to manage. Even the Catalogue of the British Museum (Natural History) has for the student of vertebrate zoology the shortcomings of its many virtues in the inclusion of *every* natural history title.

In an effort to supply this want the Compiler has attempted in the present volume to furnish, in the excellent form of the London Zoological Society's *Catalogue*, a roster to date of most periodicals and serials devoted partially or entirely to vertebrate zoology. The work that adequately supplements this list is, of course, the *Zoological Record*.

A few *current periodicals on vertebrate zoology*, especially avian contributions, are: *Ibis* (British); *Aquila* (Hungary); *Auk* (U.S.A.); *Beiträge zur Fortpflanzungsbiologie der Vögel* (Germany); *Berichte des Vereins Schlesischer Ornithologen* (Germany); *British Birds* (London); *Avicultural Magazine* (British); *Condor* (Pacific Coast, U.S.A.); *Australian Zoologist*; *Emu* (Australasia); *Flora og Fauna* (Scandinavia); *Novitates Zoologicae* (London and Tring); *Gerfaut* (Belgium); *Irish Naturalists' Journal*; *Scottish Naturalist*; *Zoological Record* (entire literature of zoology); *Journal of the Bombay Natural History Society*; *Stray Feathers* (India); *Journal für Ornithologie* (Germany); *Kócsag* (Hungarian) for Protection of Bird Life; *London Naturalist*; *Norsk Ornithologisk Tidsskrift* (Scandinavia); *Bulletin Zoological Society of Egypt*; *Oiseau*; *Revue Française d'Ornithologie* (France); *Der Zoologische Garten*; *Zoologischer Anzeiger*; *Ornithologische Monatsberichte* (Germany); *Aarsberetning* (and *Aarshefter*) of the Tromsö Museum (Norway); *Proceedings of the Academy of Natural Sciences of Philadelphia*; *Journal of Mammalogy*, Baltimore; *Proceedings of the Zoological Society* (London); *Revista do Museu Paulista* (Brazil); *Archivos* and *Revista do Museo Nacional*, Rio de Janeiro; *South African Journal of Natural History*; *Anales of the Museo Nacional de Historia Natural* (Buenos Aires); *El Hornero*, issued by the *Sociedad Ornitologica del Plata*; *South Australian Ornithologist*; *Uragus* (Siberia); and the *Wilson Bulletin* (U.S.A.).

More of a popular order are the *Ornithologische Beobacter* (Germany); *Bird-Notes and News* (Great Britain); *Aviculture* (U.S.A.); *Bird-Lore* (U.S.A.); the publications of the numerous Audubon Societies (U.S.A.), and the *East Africa and Uganda Natural History Society Bulletin*.

International Congresses and Conferences on zoology in general were interrupted by the World War but have since then resumed their meetings.

Several of these have been mentioned in connection with the publications to which they gave rise. Perhaps the chief meetings are those of the *Congrès Internationale de Zoologie*, whose first Session was held in Paris in 1889. Since then the sittings have occurred about every four years—in Moscow, Cambridge (England), Leipzig, London, Berlin, Geneva, Boston (Mass.), Cambridge (Mass.), &c., the ninth at Monaco in 1913. All sorts of *Comptes-Rendus*, *Règles*, *Verhandlungen*, &c. were issued after the various Sessions, for which consult the appended Catalogue.

The papers &c. of the *International Congress of Ornithology* (first held in 1885) generally appeared in its official organ, *Ornis* (q.v.). The last or Seventh (quadrennial) Session was held this year (1930) at Amsterdam.

The International Convention for the Protection of Birds, held in Budapest, 1907, is reviewed by Ottó Herman.

The Compiler has elsewhere spoken of the great value to the advanced student of the *Zoological Record*, now in its sixty-fifth volume, at the moment ably edited by W. L. Sclater. At least the sections that include vertebrates should be accessible to every one interested in that subject.

Another periodical essential to the studies of the specialist in vertebrate zoology is the famous *Archiv für Naturgeschichte*, 1835–date. Another is the *Archives de Biologie*, 1880–date. Still another is the *Annals and Magazine of Natural History* with its many mergers, changes of title, and editorial management since its first issue at Edinburgh in 1837. This journal is among the most important conservators of vertebrate faunal literature in any language.

The above four periodicals might well constitute a small but comprehensive reference

library that contains most of the information required by a student of modern vertebrate zoology.

Many of the publications that have from time to time been issued by British Colonial natural history societies, &c., are listed in the appended Catalogue. As an example one may quote the *Transactions and Proceedings of the New Zealand Institute*, a composite association founded in 1867. This important periodical has been issued regularly since 1869.

It seems hardly necessary to refer to the fact that access to the voluminous periodical literature of general biology—which of course includes general zoology—is essential to a serious study of vertebrates, and this truism is put forward as a reason for including them in this Catalogue.

Of what might be termed 'semi-avian' magazines, such as *Eggs and Stamps*, *The Naturalist* (devoted entirely to Ornithology and Geology), *The Weekly Oologist and Philatelist*, as well as others of a more ambitious type, the Compiler cannot give more than a passing notice, although some of them present papers of ornithological importance.

The numerous and important publications of the British Museum (Natural History) have been referred to many times in the present Introduction with a note that their titles are generally to be found in the appended Catalogue. The *History of the Collections* (1904–12), in 2 vols. and Appendix, should be in reach of every student of vertebrate zoology; nor should he despise the various Guides, Books and Maps, Instructions for Collectors, Economic Series, &c., intended in the first instance for visitors and amateurs. A complete list of these titles is published in the Cat. Br. Mus. (Nat Hist.) Supplement, pp. 130–40.

The biologic publications of Cambridge are more numerous than those of any other British University. The 46th *Annual Report of the Museums* (1912) gives an account of the natural history activities, that are still carried on.

Of many local British journals are the *Proceedings of the Cheltenham Natural Science Society* (founded 1877) that began its New Series in 1907; the *Journal of Economic Biology* (now of *Zoological Research*), 1905 to date, edited by W. E. Collinge; and the *Cotteswold Naturalists' Field Club*, typical of dozens of such useful associations in the British Isles, published 14 vols. of *Proceedings*, 1847–1903. Still older is the Devon and Cornwall Natural History Society, founded in 1838, and its publications.

A specialized but important British periodical is *Biometrika*, a journal for the statistical study of advanced biology, 5 vols. of which have appeared, 1901–7.

Among many other local British periodicals devoted to natural history, the majority published by county and other societies, is the Birmingham Natural History . . . Society whose annual report has been regularly issued (with few exceptions) since 1899. The *Bradford Scientific* (Association, founded 1875) *Journal* published its first number in 1904. The *Welsh Museum of Natural History*, Cardiff (founded 1863), later the *National Museum of Wales*, and the *Cardiff Naturalists' Society* both publish *Reports* and *Transactions*, the latter beginning about 1868.

The noteworthy *Essex Field Club*, previously mentioned, published a *Year Book and Calendar* (1905–14) and *Special Memoirs*, 1885–1910, including the *Birds of Essex* by M. Christy, pp. 8+302, 1 pl. and numerous text figs.

Mention has been made of the *Glasgow Naturalist*. This journal has been issued regularly since the appearance of its first volume in 1909.

The *Hampstead Scientific Society* (founded 1899) has issued Annual Reports since 1891, as well as other works on the natural history of the neighbourhood.

The *Hastings and East Sussex Naturalist* (1906–date), the organ of the *Hastings and St. Leonard's Natural History Society* (founded 1891), is among several useful publications of that local society.

One must not pass over the zoologic publica-

tions of the *Hull Museum*, whose *Publications*, Nos. 1–?85 (birds &c.), are of distinct value.

The periodicals and serials in the German language of local societies, museums, universities, and other institutions are more numerous than those of any other country. Lack of space does not allow the Compiler even to list here the chief of these, but the Catalogue does. The *Zoologische Sammlungen* issued by the (Berlin) Friedrich-Wilhelms-Universität is a good example, one of the first issues appearing in 1899.

The *Naturhistorischer Verein d. Preussichen Rheinlandes* &c. and the *Niederrheinische Gesellschaft f. Natur- und Heilkunde* have both issued their *Sitzungsberichte* since 1906.

The *Badischer Zoologischer Verein* (Karlsruhe) was founded in 1899, since which date it has regularly published *Mitteilungen*, amply illustrated.

The well-known *Neue Zoologische Gesellschaft* of Frankfurt a.-M. has published the *Zoologischer Beobachter*, 1906–11.

The *Thurgauische Naturforschende Gesellschaft* (founded in 1857), one of many similarly-named societies in German-speaking lands, has published regularly its *Mittheilungen* since 1857.

The very important *Gesellschaft Deutscher Naturforscher u. Aerzte*, several times mentioned in these pages as prolific of zoologic literature, has recently (1868–1930) issued several important *Fest-* and *Denkschriften* whose full titles will be found in the accompanying Catalogue. The *Oberhessiche Gesellschaft f. Natur- und Heilkunde* has published its well-known *Bericht* since 1849.

There are in the McGill libraries many 'separates' of zoological journals whose periodical status presents a difficulty. These are *Berichte*, *Annuals*, *Year Books*, *Annual Bulletins*, *Jahresberichte*, *Aarsberetning*, *Annuaires*, &c., generally printed as integral parts of a parent magazine and usually paged as it is. It often happens, however, that these excerpts are provided with a special cover, title-page, index, and, sometimes, with a preface entirely distinct from that of the periodicals from which they were extracted. In this guise the reprint is placed on the market and advertised as a distinct publication. When, in addition to these devices, the excerpt is separately paged, its claim to a place in such a compilation as this is much strengthened. The Compiler feels, therefore, that in the following Catalogue he may quite properly be criticized for accepting some of these abstracts and rejecting others of equal or of greater value.

It may not be out of place to refer, briefly, to a few of these yearly reviews. One of them is Moske's *Ornithologischer Jahresbericht über Pommern*, printed in the *Zeitschrift für Ornithologie*. This report appeared regularly for several years, and does not differ materially from similar contributions to journals that are quoted in booksellers' lists as *bona fide* periodicals.

In the case of annuals like the valuable *Report on Scottish Ornithology* (of which three issues were printed as separate publications and the remainder wholly as contributions to the pages, first of the *Annals of Scottish Natural History* and subsequently of the *Scottish Naturalist*) notes on the whole series are appended to the titles in the Catalogue.

Attention may also be drawn to the *Reports of the Movements and Occurrence of Birds in Scotland* by L. W. Hinxman and T. G. Laidlaw, that ran for many years in the *Annals of Scottish Natural History*. The E.S.W. Library of Ornithology has a series of these—1891–9 inclusive—issued separately but bearing the pagination of the journal in which they originally appeared.

A short but excellent example of an annual, or multiannual, periodical is the *Ornithologischer Bericht über Mecklenburg*, of which the tenth report (1914–20), much delayed by the Great War, was printed in the *Archiv. d. Fr. d. Naturges. in Meckl.*, 74, 1920.

Whatever their standing, annual reviews in the shape of bound 'separates' form handy volumes for the research student even when complete sets of the parent journals are also accessible. For example, the E.S.W. Library

has a 'run' (from the Reichenow-Cabanis collection) of the *Bericht über die Leistungen in der Naturgeschichte der Vögel*, and *Aves*, edited by Hartlaub, von Pelzeln, Hellmayr *et al*, covering the sixty-one years between 1846 and 1907. These reference volumes are reprints from the corresponding *Jahrgänge* of the *Archiv für Naturgeschichte*, and, in the shape indicated, save much time and labor otherwise expended in hunting references in the library copy of the general zoological periodical.

A minor but useful yearly review is the Koenig-Warthausen *Ornithologischer Jahresbericht*, one of the *Jahreshefte des Vereins für väterländische Naturkunde in Württemburg*, not separately paged, however.

Scandanavia, including Holland and Belgium, is prolific of natural history societies, museums, &c., most of which publish periodical literature on vertebrate zoology. Here one may mention, *inter alia*, the Bergens Museum whose *Skrifter*, in annual volumes, first appeared in 1878.

The *Annales de Zoologie de la Musée du Congo Belge*, published in Brussels since 1898, and the *Mémoires de la Musée Royale d'Histoire Naturelle de Belgique*, 1900 to date, are among the important zoological periodical literature of Belgium.

Of some importance are the publications of the *K. Norsk Frederiks Universitet*, issued in Christiania since 1895.

Reference has already been made to the *Dansk Naturhistorisk Forening*, founded at Copenhagen in 1838, as well as to the *Dansk Ornithologisk Forening* (founded in 1906) whose *Tidsskrift* has appeared regularly since 1906. In Denmark, also, is published the *K. Dansk Videnskabernes Selskab*, whose *Biologiske Meddelelser* has regularly appeared since 1917.

A valuable contribution to vertebrate zoology has for many years been the various periodicals and single monographs issued by the Gothenburg Museum.

The *Hollandsche Maatschappij* of Haarlem continues to publish several natural history periodicals and other works; the *Archives* since 1898; the *Natuurkundige Verhandelingen* (1900–30), &c.

The *Naturhistoriches Museum* and the *Zoologische Gesellschaft* are among the chief sources of periodical and other vertebrate zoological literature in Hamburg. Several of these have already been annotated in the appended Catalogue.

To the student familar with the Scandinavian languages, there are several periodical reviews accessible. For instance, in a McGill Library is a set of early separates: *Årsberättelser om Vetenskapernas framsteg, afgifne af Konigl. Vetenskaps-Academiens Embetsmän*, Stockholm, 1822–53. These admirable reports on bird life were contributed as follows: 1821–8, J. W. Dalman; 1829–31, S. Nilsson; 1832–6, B. F. Fries; 1837–50, C. J. Sundevall.

Although this is not the place to furnish a complete account of such serials, it is even more difficult to place reviews that appear irregularly or that cover an uneven period of years. Such a publication is R. Collett's helpful *Mindre Meddelelser vedrør Norges Fuglefauna i Aarene . . .*, issued in several sections as appendices of the Norse *Nyt. Mag. f. Naturv.* The first part comprises the years 1873–6, the second 1877–80, and the third the years 1881–92. Such serials, issued in sections and separately paged may, perhaps, be regarded as periodicals, but it was decided to omit them from this Catalogue.

Finally, for the English reader the best *annual* reviews of the regularly published sort are the *Zoological Record* and the *Ibis Index of Ornithological Literature* (1870 and onwards) by Sabin and Sclater, which for many years have furnished an admirable account of the literature.

In determining the status of a 'purely ornithological' periodical, it was decided (with some regret) to omit those journals that deal exclusively (or mostly) with *poultry*, *domestic pigeons*, *canaries*, and the *sporting* aspects of bird life. For this reason it was decided that such otherwise interesting journals as *The Homing Pigeon* (17 vols., 1905–22) and *Die*

Zeitschrift für Brieftaubenkunde should be excluded. Poultry magazines and kindred by-products of scientific ornithology have an enormous periodical literature in many languages—particularly in English and German—scattered over the whole globe. The Compiler has gathered a list of nearly three hundred of these, and he has reason to believe that there are many more. Some of them are well illustrated and admirably conducted; and not infrequently they contain articles of decided merit, written by competent observers on subjects closely related to scientific ornithology. They occasionally discuss, for example, Mendelian problems, avian pathology and psychology, experimental aviculture, acclimatization, hybridism, &c.

Just what to do with such (generally annual) periodicals as *Bird Calendars*, *Taschenbücher*, *Kalender für Vogel-Freunde*, *Bird Years*, &c., is not easy to decide, but in view of the generous supply of magazines proper it was decided to pass them by with this brief mention.

Although it seems at first blush trivial to speak of it, yet who shall say that a century hence the 'airy nothings' in our zoological periodicals may not acquire a certain value—sociologic, perhaps—and afford a means of determining just what sort of people we were? At any rate, the Compiler records the issues of one of these comic publications, *The Auklet*. The first number has as its minor title, *Occasional Journal of Ornithological Minutiae*, Illustrated, Vol. 1, No. 1, 1920. Current. Anonymous. Privately printed. Washington, D.C. This amusing critique of men and things ornithological is well worth reading.

Although most of the periodicals, including the annuals and the irregularly published bulletins edited by the American Audubon Societies, have been listed in this Catalogue (and many of them are genuine contributions to the progress of scientific ornithology), yet the Compiler has been obliged to omit a few titles of this character because of his inability to obtain the data necessary for annotation. In this connection it is hoped that, after a proper interval, a supplement to or a second edition of this Catalogue will be written, perhaps by another hand, in which this and other defects may be remedied.

Of British periodicals devoted entirely or partially to natural history the names are practically legion, and the Compiler could not if he would mention in this place more than a small fraction of them. However, among the oldest of the general journals is the famous *London, Edinburgh, and Dublin Magazine*, first published in 1728, which with several changes of major and minor titles still continues its useful activities.

It may be well to repeat at this time that the appended Catalogue has a fairly good list (and the McGill libraries a corresponding supply) of those numerous British and Colonial periodicals and serials whose titles begin with the adjective *Royal*; many of them publish valuable articles on vertebrate zoology. Of course the publications of the famous *Royal Society of London* (founded in 1660) is the forerunner of them all.

A chain of Linnean societies was early forged in all countries favorable to such projects. Their publications are of outstanding interest to naturalists. Among them, and perhaps the most important, are the *Transactions*, *Journal*, &c., of the Linnean Society of London, founded in 1788; the *Proceedings* of the Linnean Society of New South Wales, 1877 to date; *Transactions* of the New York Linnean Society; the *Bulletin* and *Actes* of the *Société Linnéenne de Bordeaux*, founded in 1818, and the *Annales de la Société Linnéenne de Lyons*, founded in 1822, the first volume of which was published in 1826–36.

French-speaking countries have been provident of periodicals largely devoted to natural history. In addition to those already mentioned one might add such publications as the *Bulletin scientifique de la France et de la Belgique* that, with its varying titles, has been published regularly since 1869.

Of departmental and sectional periodicals a *Bulletin* of the *Société des Sciences Naturelles*

de l'Ouest de la France (founded in 1891) has appeared regularly since its foundation.

During the period of its publication, 1872–7, Gervais's *Journal de Zoologie*, Paris, was a valuable periodical and its six volumes still stand as a work of reference.

Of the many natural history publications by Museums in France those of the *Musée d'Histoire Naturelle de Marseilles*, founded in 1819, is a good example, especially the *Travaux du Laboratoire de Zoologie Marine*, and the *Annales*, the latter issued continuously since 1883. Of course the numerous and important periodical publications of the Paris *Muséum d'Histoire Naturelle* quite overshadow all other French serials, including the *Bulletin* and *Mémoires* of the *Société Zoologique de France*. The *Annales* of the former first appeared in 1802, the *Bulletin* of the latter in 1876.

During its period of publication (1849–79) the *Revue et Magasin de Zoologie pure et appliquée* was a notable French periodical and the same can still be said of the *Revue Suisse de Zoologie*, whose first volume was published at Geneva in 1893.

Another local French society, the *Société des Amis des Sciences Naturelles*, founded in 1865, has continuously issued a creditable *Bulletin* since 1866.

The Iberian Peninsula furnishes quite a few periodicals in part or wholly given over to natural history. One of these is the *Memorias* published by the Madrid *Real Academia de Ciencias exactas* (founded in 1847); another the *Boletin* of the *R. Sociedad Española de Historia Natural* (founded in 1871) first issued in 1901.

Several Italian natural history periodicals have already been mentioned; one of much importance is the *Atti della Società Italiana di Scienze Naturali* issued from Milan since 1859.

Taking them at random, of a few of the more prominent German periodicals in whose volumes will be found many valuable and original essays and articles on vertebrate zoology one may mention the *Biologische Zentralblatt*, founded by Prof. J. Rosenthal, Erlangen, 1881 to date. The *Abhandlungen* of the Dresden *Naturwiss. Gesellschaft Isis* have been published since 1860, the society itself having been founded in 1833.

An excellent example of the numerous array of local German journals is the *Jahresbericht* of the *Naturwiss. Verein von Elberfelde*, founded in 1846. More important are the several periodicals (*Abhandlungen*, *Berichte*, *Katalogen*, &c.) issued regularly by the *Senckenbergische Naturforschende Gesellschaft*, a vigorous society founded in 1817.

In 1823 was founded the popular *Görlitzer Naturforsch. Gesellschaft*, since which date the society has regularly published its *Abhandlungen*, &c. The *Mittheilungen* of the *Greifswald Naturwiss. Verein* (founded in 1866) has been regularly issued since 1869. The *Halle Verein* (founded in 1848) is still more productive of zoological literature issued under various titles, especially since 1853; in the same town was published *Der Naturforscher*, 1774–1804.

Still another active society is the *Mecklenburg. Verein der Freunde der Naturgeschichte* whose *Archiv* have been regularly published since its foundation in 1847.

A most important journal devoted to zoology is that issued, among many others, by the *Deutsche Zoologische Gesellschaft* since 1896—*Das Tierreich*.

A rather important German periodical is *Kosmos*, devoted in particular to vertebrate embryology. A complete set (1877–86) of 19 volumes is in the Blacker Library.

The important *Verhandlungen*, as well as the official *Anzeiger*, organ of the *Deutsche Zoologische Gesellschaft*, has been issued since 1891 and 1890 respectively.

The organs of the numerous natural history societies—mostly in Central Germany—whose titles include the name *Naturforschender Verein* are catalogued, as a rule, under the names of the towns or provinces to which they belong. Some of them are quite important.

There are few of the numerous general zoological German periodicals more valuable to the advanced student than the *Zeitschrift f.*

Wissenschaftliche Zoologie, founded by C. T. von Siebold in 1849 and since regularly continued.

Of the numerous French and Swiss journals devoted to natural history, many of them issued by local museums and societies, a few have already been mentioned. Practically all the important serials and journals of this class find a place in the Catalogue. The *Archives de Zoologie expérimentale et générale* (of great value to the student) has been regularly issued in Paris since 1872, the 66th volume bearing date 1927. The *Comptes Rendus* of the *Ass. Française pour l'Avancement des Sciences* (already mentioned) reached its (annual) 54th volume in 1930. As in the case of corresponding Associations elsewhere in the world of Science the society has held meetings in almost every part of the great Empire included in its sphere of action.

By the way, few there are that know the forerunner of our own A.A.A.S.—The Association of American Geologists, founded in 1840.

At Bordeaux was first published in 1895 the *Procès-Verbaux* of the *Société des Sciences Physiques et Naturelles.*

The *Bulletin* of the *Société Vaudoise des Sciences Naturelles* (founded in 1815) has appeared promptly since 1842.

The South European countries supply a fair amount of periodical literature dealing with vertebrate zoology. The Budapest *Magyar Nemzeti Múzeum* published, *inter alia*, *Die Vögel Ungarns* (1899–1903) by G. Madarász, while the *Magyar Tudományos Akadémia* (from 1864 onwards) issued treaties of like character. The *Academia Română* (founded in 1866) has published various zoological papers from time to time.

The long-established *Musée d'Histoire Naturelle* of Geneva has published a number of serials and periodicals, among them several Catalogues of its zoologic collections.

Local natural history societies, museums, universities, and other institutions, with their corresponding publications, are almost as numerous in America as they are in Europe. At this time there is space in this Introduction to list only a few of these in addition to those already mentioned elsewhere. Among them are the important *Journal* and *Proceedings of the Academy of Natural Sciences of Philadelphia.* An *Index to Scientific Contents . . . 1812–1912* was published in 1913.

The New York State Museum dates from 1845 and has published *Annual Reports* since 1848, a *Bulletin* since 1887, and *Memoirs* since 1889.

Notre Dame University (Indiana) has issued the bimonthly *American Midland Naturalist* since 1909.

The (New York) American Museum of Natural History, one of the foremost of New World institutions, continues to publish important and numerous serials and periodicals, details of which will be found in the appended Catalogue.

The publications of the University of California on Zoology began in 1902, and have regularly been issued since that date.

Volumes of the important *Biological Bulletin* of the (Wood's Hole, Mass.) Marine Biological Laboratory have been published continuously since 1899.

The chief Hawaiian natural history activity, the *Bernice Pauahi Bishop Museum* (founded 1889) &c. at Honolulu, has issued excellent *Occasional Papers* (1899–1930) and *Memoirs* (1899–1930).

Further mention must be made of the *Illinois Natural History Survey* (established in 1918 as one of the State University functions) whose *Bulletin* has been regularly issued since its creation.

The *Bulletin* of *Iowa State University Laboratories of Natural History* and its continuations have been published in yearly volumes since 1888.

The *University of Colorado Studies* (vol. i, 1903) as well as the *Bulletin* (vol. i, 1900), with contributions on vertebrate zoology, are published at Boulder, Colo.

The *Brooklyn* (N.Y.) *Institute of Arts and Sciences* (founded 1824) is a large and influential combination of various departments of

natural history. Prominent among its publications are its *Cold Spring Harbor Monographs* (1903–30); *Memoirs of Nat. Sciences* (1904); the *Children's Museum News*, issued under different titles since 1902; and the *Brooklyn Museum Quarterly* (1914–30); &c.

Of the many zoological periodicals issued by Harvard University those of the *Museum of Comparative Anatomy* (already mentioned) are to be kept in mind.

The Departmental publications of the Canadian Government and its departments of Agriculture, Mines, Marine and Fisheries, &c., as well as of the several Surveys furnish a goodly array of zoologic literature, all of which will be found in the present Catalogue.

As before intimated, the Carnegie Institute (Pittsburg), founded 1895, has issued since 1898 valuable *Publications of the Carnegie Museum*, while the Carnegie Institution of Washington (founded 1902) began to publish in 1903 a *Year Book* and now numbers about 500 *Publications* (1902 to date), many with papers of great value to the student of zoology.

The *Ohio Naturalist*, published at Columbus, official organ of the Ohio State University (founded 1870), has been issued at regular intervals since 1900.

The American Academy of Arts and Sciences (founded in 1780) has continued its first volume of *Memoirs* since 1780, its *Proceedings* since 1846. The *American Journal* (Silliman's) has had an honorable career since the first issue in 1818.

Among the many publications of local American natural history societies is the serial *Pacific Coast Avifauna* (1900–30) dealing chiefly with bird life of that region and issued under the auspices of the very active Cooper Ornithological Club of California (founded in 1893).

Partaking largely of what may better be listed as a Serial is that admirable periodical described in the appended Catalogue under the ponderous caption *United States Department of Agriculture; Biological Survey Division; North American Fauna*, 1889 to date. These separately-paged memoirs are (when treating of vertebrate zoology) annotated under individual headings in the present Catalogue. The Biological Survey also issues a separately-paged *Bulletin* of great scientific interest and value, 1889–date.

Attention has already been drawn to the importance of the periodical literature issued by the U.S. National Museum—its *Annual Report* (1884 to date); *Bulletin* (1875 to date); *Proceedings* (1879 to date); and its *Special Bulletin* (1892 to date).

In Europe scientific societies of this character, as well as their numerous publications, are much more prolific than in the New World, and it has not been possible to do more than mention a small fraction of them. A typical example is the *Allgemeine Schweizerische Gesellschaft*, &c., whose *Verhandlungen* was first issued in 1817. With several other publications it has been continued ever since.

Our limited space does not permit of more than a mention of a few of the numerous *local* North American periodicals devoted to zoology, but as an example of these the valuable *Proceedings* of the Portland (Maine) Society of Natural History (founded in 1843) has been continuously published since 1869.

Canada is well represented by natural history periodicals, listed in the Catalogue, one of which is the *Canadian Naturalist* first published as the organ of the Natural History Society of Montreal (founded 1827, now defunct) in 1857. Another of similar name, *Le Naturaliste Canadien*, was edited by the Abbé L. Provancher, 1869–91, afterwards by the Abbé V. A. Huard.

The Ottawa Field-Naturalist's Club, founded in 1879, has published since that date its *Transactions* (1880–7), continued as the *Ottawa Naturalist*.

Toronto University (founded in 1827) issues a valuable series of natural science periodicals, among them a *Biological Series*, first edited by Ramsay Wright, 1898 to date.

Several South American natural history museums and societies (with their publica-

tions) have already been noted. Among these is the Museu Goeldi (Paraense) de Historia Naturel, founded in 1867, whose *Boletim* was first published at Parà in 1894.

The *Revista* issued by the *Museo de La Plata* (founded in 1877) since 1890, and the *Anales* since 1891, should not be passed over.

To the roster of American publications on zoology may be added the periodicals of the Boston Society of Natural History—*Journal*, *Memoirs*, *Proceedings*, &c., that first appeared in 1837. It has since published many fundamental papers on vertebrate zoology. Sets of all these serials are on the shelves of the McGill libraries.

Another notable American society that has regularly issued its *Journal* since its foundation in 1870 is the Cincinnati Society of Natural History.

An important though popular magazine is *Forest and Stream*, New York, in which, since its first publication in 1874, have appeared many serious papers on vertebrate zoology.

A more recent source of vertebrate literature are the publications (various *Series* especially) of the Field Museum of Natural History, founded in 1893 at Chicago.

An American periodical, valuable for the research student, is Whitman's *Journal of Morphology*, first published in 1887. Of even greater value is Gegenbaur's *Morphologisches Jahrbuch*, issued regularly since 1876.

Another German periodical is the *Zeitschrift für Morphologie und Anthropologie*, 1899–1930.

In the Philippine Islands the Government Science Bureau is the one source of periodicals interesting to the zoologist. The *Philippine Journal of Science*, edited and first regularly issued by P. C. Freer in 1906 and now under the care of R. C. McGregor, is a periodical of great scientific value.

The *Annals of the Durban Museum* (founded in 1885) has been regularly issued since 1914; a *General Guide to the Museum* was published in 1916.

The *Journal of the East Africa and Uganda Natural History Society* (founded 1909) has been published in London regularly since 1910.

The *Annals* as well as the *Reports* of the Pretoria Museum and Zoological Gardens (founded in 1892), issued since 1908, deserves mention. Another African periodical of importance is the *Revue Zoologique Africaine*, Bruxelles, 1911 to date.

Of Dutch journals the periodicals of the Amsterdam *Koninklijk Zoologisch Genootschap* (1838) and of the *Kon. Akademie van Wetenschappen* (1851) are very important. They are noted in the appended Catalogue.

Australia and New Zealand have contributed quite a few interesting periodicals to vertebrate zoology, some of which have already been mentioned.

The Queensland Museum began publishing a serial—*Memoirs*—in 1912, which has been regularly issued since.

The Canterbury Museum (Christchurch, N.Z.) has been issuing *Guides* since 1900 and *Records* since 1907, dealing with the flora and fauna of the Dominion.

In 1896 was first issued the *Geelong Naturalist* and *The Wombat*, now consolidated under the first-named periodical. It is the flourishing organ of the Geelong (Victoria, Australia) Naturalists' Field Club, founded in 1880.

In 1882 was founded the Australasian Association for the Advancement of Science whose (Annual) *Reports* have appeared regularly since that date.

Of Northern European countries Finland contributes several excellent periodicals, the chief of which is, perhaps, the *Acta Societatis pro Fauna et Flora Fennica*, Helsingfors, regularly issued since 1875.

The Far East—British India, Ceylon, Dutch East Indies, Indo-China, Malaysia, Japan, &c.—is the source of many activities furnishing periodicals of interest to the vertebrate zoologist. One of the most prolific of these is the (Calcutta) Indian Museum already mentioned. Its *Memoirs* (separately paged papers) and *Records*, each begun in 1907, are important

serials, while *Guides*, *Catalogues*, and *Lists* continue to be published.

Among the issues of the Ceylon Government is the *Annual Report of the Marine Biologist* (1909–30). A famous Government institution, the Colombo (Ceylon) Museum, founded in 1875, not only issues the usual *Guides*, *Reports*, and *Memoirs* but sponsors the well-known *Spolia Zeylanica*, vol. I of which was published in 1903.

The Museums Department of the Federated Malay States has been publishing regularly an illustrated *Journal*, from Kuala Lumpur, since 1905 and an *Annual Report* since 1911.

Of voluminous Russian periodical literature, among the most important are the publications of the *Société Imperiale des Naturalistes*, Moscow, founded in 1805 which, with several vicissitudes of name and dates of publication, has been issuing *Mémoires*, *Bulletins*, &c. since 1809.

Of periodicals important for students of Far Eastern zoology, none is of greater value than the *Journal of the Bombay Natural History Society*, issued regularly since 1886, and, as mentioned, the publications of the various *Royal Asiatic Societies*, mostly branches of the parent London Society.

Several Australasian periodicals devoted to natural history have already been mentioned, and many more are on the roster of the Catalogue. An important example is the *Journal and Magazine of the Field Naturalists' Club of Victoria* (founded in 1880) issued since 1884, while the *Emu*, organ of the Royal Australasian Ornithologists' Union, has been regularly published for many years.

Among University institutions devoted to natural history and very numerous in the United States, one may mention the Illinois State Laboratory of Natural History, founded in 1862, whose *Bulletin* has been issued since 1876.

Another typical example of a local American society issuing praiseworthy periodical literature is the Wisconsin Natural History Society, founded in 1857, that published its *Bericht*, first in 1871; *Bulletin and Proceedings* since 1885, and *Occasional Papers*, 1889–96.

As already noticed, Italian scientific societies were among the earliest foundations, and among the first to issue their own periodicals and serials. One of these, the *Reale Istituto di Studi Superiori* of Florence, was organized in the fourteenth century, although its natural history *Pubblicazioni* were not begun, as separate memoirs, until 1877.

CHAPTER XIX

UNIQUE AND RARE PRINTED BOOKS, MANUSCRIPTS, AND DRAWINGS IN THE ZOOLOGICAL LIBRARIES OF McGILL UNIVERSITY.

Autograph letters—The Woodward, Darwin, Bowdler Sharpe, Elliott Coues, Sherborn, Robt. Ridgway, Brewster, Casey Wood, R. Macgregor, and other Collections—Original Drawings and Manuscripts—Rabié—Wm. Lewin—Feather Book of Minaggio—James Forbes—F. W. Frohawk—Ronald Green—John Gould—Hayes Family—Keulemans—Joseph Wolf—Samuel Howitt—H. W. Weir—A. Machien—F. W. Surtees—E. A. Wilson—F. J. Shore—W. E. Powell—Karl Plath—E. Neale—R. Dias—W. R. Fisher—G. M. Henry—John Duncan—W. J. Belcher—The Taylor White Collection of water-colors—Van Huysum—C. Collins—P. Paillou—E. Albin—G. D. Ehret—G. Webster—Lady Elizabeth Gwillim—P. H. Gosse—John Walcott—J. Gundlach—H. Grönvold—Samuel Pepys' copy of Willughby's *Ornithologia*—Rare and unique zoological books—G. Germano—J. J. Audubon—Elliott Coues—Sir W. Jardine—John Latham—Wm. Turner—J. Lemoine—J. P. A. Leisler—Jas. Backhouse—L. P. Vieillot—Unique Persian Codices and Printed works on Zoology—Original manuscripts—G. A. Borelli—Antoine Fée—I. G. Saint-Hilaire—Dame Juliana Berners—Jerdon and Blyth—Pliny the Second—Bewick Chapbooks—Alex. Wilson—Rabanus Maurus—1508 edition of Oppian—Merrem's *Beyträge*—Flamen's copper plates—Jan van de Straet's book on Venery—Siebold's *Fauna Japonica*—John Gould's Birds in manuscript—Jo. Ursino—Martin Saint-Ange and his *Traité élémentaire*, 1834–40—The very rare *Storia naturale* of Eugenio Bettoni—Balthasar Monconys' *Journal des Voyages*, 1665–6—Schonevelde's North European Ichthyology—Barthomaeus Anglicus—Paul Barthez—Sir Joseph Banks' manuscript—Leisler—Milne Edward's Library rarities—Rare works of Prince Bonaparte—Martin Saint-Ange—Monconys' Journal—Father Bougeant—Borkhausen's *Teutsche Ornithologie*—A rare Buffon.

EVERY large library gathers in the course of time a number of literary treasures that vary in number and quality with the enthusiasm, collecting spirit, and funds at the disposal of the librarian or his advisory bodies. In the case of McGill the zoological collections not only have acquired their share of these rarities but have also extended their acquisitions to rare and unique items not generally considered in University quarters as related to library activities. The descriptions that follow are not intended to glorify the McGill acquisitions but to furnish the student with the characters of unusual titles accumulated by every large library of the present kind.

In the category of *unica* is a collection of letters of naturalists. These are regarded by the Librarian and the Compiler as of importance because of the character of the subjects generally discussed in them and because of the light thrown on the scientific life and character of the writers, their work, their opinions, and their peculiarities. A genuine history of the progress of vertebrate zoology cannot be written unless one is acquainted more or less intimately with the working methods and daily doings of the makers of that history.

By purchase and gift the Blacker and E.S.W. libraries have in the course of ten years or more collected over 25,000 letters and

unpublished manuscripts written by nearly every prominent writer on zoological subjects from the seventeenth to the twentieth centuries. Chief among these are the Woodward (British Museum), Bowdler Sharpe, Elliott Coues, Sherborn, Robt. Ridgway, Brewster, McGregor, and Casey Wood collections. This assemblage of autograph material, alphabetically arranged and stored in fireproof containers, is, very naturally, accessible only to responsible and advanced students of zoology. *Much of it cannot be published now*, but most of it has a direct and important bearing on the history of zoology. Moreover, the Compiler believes that the future historian of natural science and its builders will find a mine of information in these more or less personal records.

Original drawings—mostly illustrations for zoological works already published—by artists more or less famous in the annals of natural history are fairly well represented in the McGill libraries. Unfortunately the collection is weak in the works of American artists; it lacks original examples of Audubon, for instance; but the Compiler hopes to remedy that defect in the near future. A few of the more important acquisitions in this line, taken at random, will now be mentioned.

At the instance of Dr. Alex. Wetmore, the Blacker Library acquired recently four folio volumes of unpublished aquarelles, with manuscript descriptions and index, by de Rabié, of the *Histoire Naturelle de St. Domingo*. These important *americana* were painted from nature by a French artist in the West Indies between 1767 and 1784, and consist of colored drawings of 59 species of birds, 75 of fishes, reptiles, and crustaceae, as well as 127 sheets depicting several hundred other natural history objects found in an important West Indian island. Dr. Wetmore has made the avian portion of this collection the basis of an illustrated paper in the *Auk*, Oct., 1930.

The Blacker Library has many original drawings by the well-known eighteenth-century artist-author, William Lewin. Among them is a portfolio of water-colors (made in 1785) of British bird eggs painted from the Portland Museum collection, being 90 original drawings, depicting 146 eggs, on thick cartridge paper, with title, descriptions, and index in Lewin's handwriting, 4to (probably unique). The figures correspond mainly with the plates in his *British Birds*, but seem to have been executed with greater care and were doubtless painted before 1786, as the contents of the Portland Museum were sold in April of that year.

Probably the most valuable of the unique zoological items in the McGill General Library is the Feather Book of Dionisio Minaggio, an official of the Court of Milan. Its curious title is dated 1618, thus making the author-artist a contemporary of Shakespeare. The book itself, with a reproduction of one of the curious feather-made pictures, is described by the Compiler in *Ibis*, p. 731, 1927. It is a huge folio, metal-clasped and bossed, $19 \times 12\frac{1}{2}$ inches, five inches thick, and containing 156 pictures of various objects—largely birds. The scientific importance of this collection lies chiefly in the fact that the birds depicted are as much as possible the bird-skins themselves with their original claws and mandibles! Among them we find well preserved specimens of song-birds, wading birds, birds of prey, &c.

The date of their preparation indicates that they are, in all probability, the oldest collection of bird skins known to ornithologists. Most of the examples have their vernacular names attached. This extremely important, well-preserved and unique collection will undoubtly be further examined and reported upon by a systematic ornithologist.

An interesting portfolio with some historical value is a collection of 54 sheets—30 figures of Indian birds; 16 of eggs; 12 of oriental serpents and other vertebrates—for illustrating James Forbes (1749–1819) *Oriental Memoirs*, 1813. The drawings were made in India by the author-artist about 1760–1813.

Of the younger school of animal painters Ronald Green, born in 1892, at Rainham,

Kent, has made a name for himself. He has illustrated Pycraft's *Flight of Birds* and made many other drawings for well-known publications. The Blacker and E.S.W. libraries have representative collections of his paintings.

It is not generally known that John Gould (assisted by Mrs. Gould) drew some of the bird portraits for his celebrated *Birds of Australia*, yet the Blacker Library possesses among its most valued drawings 22 water-colors, most of which were used for the purpose just indicated. The notes on the margins of the drawings (made between 1831–6) are in the handwriting of Mrs. Gould.

Both the Hayes and the Hayes families of animal portrait painters are represented in the Blacker and E.S.W. libraries.

Of the former, Charles Hayes is least known. He was, however, the son of the famous William Hayes. *Vide infra.* His works are represented in the E.S.W. Library by a portfolio of 50 well-executed sheets of original drawings of birds, without descriptive matter.

William Hayes (1729–99) is best known as the artist who supplied the admirable illustrations of the *Portraits of Birds . . . at Osterley Park.* He drew these and many other paintings both alone and in collaboration with other members of his family. A portfolio of 49 colored paintings, from the library of Lord Willoughby de Broke, now in the Blacker collection, made in conjunction with A. Hayes, were drawn between 1779 and 1789.

Original sketches and water-color drawings of the celebrated animal painter John G. Keulemans (1842–1912), born in Rotterdam but domiciled in England, are well represented in the McGill—mostly Blacker—collections. Many of the original aquarelles, sketches, and colored lithograms intended to illustrate Sir Walter Buller's *Birds of New Zealand*, all of the original water-color drawings (not colored lithograms) for St. John Mivart's *Canidae*, and a portfolio of selected drawings made to illustrate papers in *Ibis*, *Proceedings of the Zoological Society*, and many other periodicals and treatises are among the treasures of the McGill collections. A unique item by this artist is a small series of oil portraits on glass of birds, painted for his friend Bowdler Sharpe, also in the Blacker Library. Altogether Keulemans was acknowledged to be the best portrait painter of birds for illustration during the last three decades of the nineteenth century.

One of the best known of British zoological illustrator-artists is F. W. Frohawk. The Blacker Library has several of his painstaking and beautiful drawings.

Among the pictured treasures of the Blacker Library are 95 original charcoal drawings, 79 of which were used to reproduce the lithographs of D. G. Elliot's beautiful *Phasianidae.* The remaining sixteen were made for the same purpose but were never published. These unique originals were made by Josef (or Josep) Wolf (1820–99), a famous animal illustrator of German birth who came to London at the age of 28 and for the remainder of his long life was employed as an illustrator by Robert Gray, John Gould, and numerous other authors who accorded him first rank as a producer of animal portraits.

A representative but small assemblage of original drawings on 26 plates—some of the figures being unfinished—is from the brush of Samuel Howitt (1765–1822). Probably by a member of the same family but of later date (*ca.* 1840) is an excellent collection of 400 drawings in color of British birds' eggs, with descriptive MS. text and both vernacular and systematic names—evidently prepared for publication.

Another artist-illustrator of books and papers on animal life is H. W. Weir (1824–1906). In the Blacker Library is a most interesting collection of 90 spirited, original, pen and pencil drawings depicting various faunal species, mostly birds, signed and dated 1869–1901.

A collection of considerable historical and scientific value is shown by the 453 well-executed original drawings of the American, A. Machien (1861) drawn on 173 plates, with a

manuscript title-page, '*Abbildungen zur Naturgeschichte der Vögel*, &c., New York, 1861'. The collection is from the library of the late George N. Lawrence.

In the library copy of E. L. Layard's *Birds of South Africa*, 1867, are inserted ten original drawings of African birds by the artist, F. R. Surtees.

In the Blacker Library are 13 valuable drawings by H. Grönvold and E. A. Wilson made (1899–1901) to illustrate the *Report* of the Voyage of the 'Southern Cross' to the antarctic region, published in 1902.

One of the most valuable manuscripts in the Blacker Library is an unpublished Appendix (in three volumes) to Latham's *Birds*, 1821–8, with 195 original water-colors of Indian avifauna by F. J. Shore. Most of these are not to be found in the 1821–8 edition, or if they do appear, the coloring is probably incorrect. This fact is pointed out by the artist-editor who states that almost every picture in his collection is painted *ad naturam* so that unaltered plumage is depicted. Copious notes accompany each drawing. A more complete review of this historical series of drawings will be found in the appended Catalogue.

Another small but unique collection of water-color drawings by W. E. Powell is in the Blacker Library, good examples of an illustrator for popular periodicals.

The E.S.W. Library has a representative collection of a rising young artist, Karl Plath, born in Chicago, 1886, who has made many successful water- and oil-paintings of birds for well-known magazines and books.

A really famous oil-painting by a well-known animal painter, E. Neale, who illustrated entirely Booth's *Rough Notes of British Birds* and contributed some of the illustrations of Dresser's *Birds of Europe*, was presented by Mr. W. J. H. Craddock to the E.S.W. Library. It pictures the Golden Eagle, the canvas measuring 3 ft. × 2 ft. 4 in.

Unusually good examples of original drawings of East Indian birds by a native artist, R. Dias, are in the Blacker Library. This collection, bound as an oblong folio and gathered between 1878 and 1881, consists of 110 colored drawings of birds, 11 of nests (two of which are in black and white), and one of eggs. Many sheets bear a printed reference to corresponding species in Jerdon's *Birds of India*. They range in size from $5\frac{1}{4} \times 2\frac{1}{2}$ to $16\frac{3}{4} \times 14\frac{1}{2}$ inches.

A unique item in the Blacker Library is a collection bound in three interleaved volumes containing 257 sheets of water-color drawings (328 subjects) of British birds' eggs by the artist, William R. Fisher. These drawings, made in 1845, with manuscript descriptions and other notes, were intended to supplement the second edition of Yarrell's *History of British Birds*. In the MS. preface, dated 1847, Fisher says 'the figures of the rarer eggs are chiefly from Mr. Yarrell's cabinet'. This fine öological atlas and letterpress was never published.

A remarkable collection of original water-color paintings of animals was secured for the Blacker Library in 1928. The animal portraits were painted between 1720 and 1740 but all efforts to identify the artist have failed. After two centuries it is not easy to obtain information regarding an illustrator who does not sign his works. The bound quarto volume of several hundred well executed figures has only this dated title-page: 'Collection d'oiseaux et d'animaux peints d'après Nature.'

A small but unique collection of well executed drawings are fourteen water-color paintings of European birds of prey by John Duncan, an English illustrator who in 1898 published his own *Birds of the British Isles*.

An unusually fine series of aquarelles is from the brush of an unknown French artist, who flourished at the end of the eighteenth century. These carefully executed drawings represent 95 birds, 7 butterflies, and 1 bat.

Of recent original drawings by animal illustrators, the Emma S. Wood Library possesses quite a few. The most important is the practically complete portfolio of colored drawings of the Birds of Fiji (about 150) by W. J.

Belcher, of Suva. The depiction of the bird life of this Polynesian group, with its appropriate surroundings, occupied nearly fourteen years of the artist's leisure, each bird being painted *ad naturam*, nearly all from live specimens in their native habitat. A number of the pictures have been used to illustrate published treatises on the avifauna of Fiji, especially a monograph on the *Birds of Fiji* by the present Compiler and Dr. Alex. Wetmore.

The single colored illustration that serves as a frontispiece to the present work has a history that the Compiler has already told in *The Ibis*, of October 1927, with the title 'Two hitherto Unpublished Pictures of the Mauritius Dodo'. It will on account of its unique character perhaps bear repetition here: 'On 16 June, 1926, there was sold at Sotheby's what is in all probability the most notable collection of water-colour drawings that has engaged the attention of natural history devotees for many a year. This property was described in the auction catalogue as "A magnificent Collection of Original Water-Colour Drawings of Natural History Subjects, by J. Van Huysum, C. Collins, P. Paillou, Eleazar Albin, G. D. Ehret, and G. Webster, loosely inserted in 29 vol. old half calf. The Collection comprises (among 495 drawings of flowers and insects) Birds: 659 drawings, by C. Collins and P. Paillou, of English and Foreign Song Birds, Game Birds, etc. in 16 vol. Beasts: 265 drawings, by C. Collins, of Animals from Hudson Bay, North America, Carolina, Brazil, Peru, India, etc. Fishes and Reptiles: 22 Drawings of Fishes, Crocodiles and Tortoises, C. Collins and E. Albin".'

This extensive array of aquarelles was originally made for Taylor White, F.R.S., of Wallingwells, Nottinghamshire, for a time Judge on the North Wales Circuit, and a man of considerable means. He was certainly an enthusiastic naturalist, a collector of curios, and a liberal patron of the arts. That he had a large collection of stuffed birds and other animals is abundantly shown by the notes he made on many of the drawings. For example, on the painting of what is entitled 'Phaeops Minor' is written: 'This bird, with many others, was brought me from North America by my learned friend, Hodgkinson Banks, Esq.' And, again: 'This bird (*Falco lagopus*) and the next, which I take to differ in sex only, were given me by Mr. Banks, together with many others that he brought from Canada and Labrador.' The following notes are appended to the picture of the Cow Deer: 'This beast with the Female was brought from Bengall and presented to Ld. Clive by Govr. Cranwell in the year 1767. The whole form of its body Divers too much from the Goats particularly its head and tail than can not properly come in to that Class. So that I considered it as a new Genus undescribed by any Author which I have met with.'

Any doubt as to the size and importance of the Taylor White collection disappears on the discovery by Mr. William J. H. Craddock, of a reference to it in the Bowdler Sharpe edition of White's *Natural History of Selborne*. On 12 April, 1770, Gilbert White, in a letter to Daines Barrington, writes: 'the collection of Taylor White, Esq., is often mentioned as curious in birds, etc.; can't I be introduced when in town, and see this museum of my namesake?'

Taylor White early put into practice the excellent plan of preserving the appearance of his specimens by having them portrayed by competent artists, not only in their natural colors but, when that was feasible, of life size. This practice seems to have been followed for many years, as shown by the dates on the pictures. Whether he authorized his artists to paint many subjects outside his own collections cannot be stated; certainly the majority of the drawings may well have been of live and stuffed examples in his own menagerie and museum.

The painters that contributed to this zoological portrait gallery were the best animal draughtsmen of their day—as announced in the Sotheby catalogue—and among the pictures was a water-color drawing of the Mauritius Dodo. So far as concerns this drawing, now in

the Blacker Library of McGill University, it was probably made from a stuffed specimen in the owner's private collection somewhere between A.D. 1730 and 1750. The particular portfolio that contained the drawing of the Dodo held 66 other pictures of Ostriches, Pheasants, Peacocks, &c., all of them by Chas. Collins and P. Paillou, 20 of them being signed and dated by Collins, 19 by Paillou. The remaining 28 were evidently painted by one or other of these artists. Most of the 67 pictures in this volume were made between A.D. 1736 and 1780.

A careful examination and comparison of the water-colour drawings convinced the Compiler that the portrait of the Dodo was by the brush of Charles Collins, who painted it about A.D. 1736, in the same year in which he published his *Set of Twelve Hand-coloured Birds, with 112 Figures of Animals*, T. Bowles, London. The latter, by the way, were the first colored figures of birds issued in this form in Great Britain.

After further investigation the Compiler says:—'I understand that the previous owners of this remarkable collection rarely opened the portfolios in which the drawings were stored, and this fact explains the freshness of the pictorial colours and the whiteness of the paper on which they were drawn nearly two hundred years ago. They have all the appearance of having been painted quite recently. In consequence I am not aware of any other painting now in existence that affords as clear and definite a portrait of the Dodo (*Raphus cucullatus*).'

'So far as the picture of the Black Dodo is concerned, the artist undoubtedly painted it with either a living or stuffed specimen in front of him. As a matter of fact, we do *not* know how many examples of the two Dodos were imported into Europe in the early years of the eighteenth century, and there was then quite as good a chance of the bird appearing in Venice, Genoa, or Milan as in Amsterdam or London.'

One of the most important collections of original paintings in the McGill libraries is that by a comparatively unknown artist, Lady Elizabeth Gwillim (1763–1807). The Compiler has already told the story of this interesting 'find' in *The Ibis*, July 1925, and the following extracts repeat the tale of a search in the cellar of a London dealer and the discovery there of a parcel containing about thirty small (10 × 14 in.) mounted and colored drawings of Indian Fishes. Each mat bore an auctioneer's (or dealer's) printed number; a few were signed 'E. G.' and upon still more were written legends (that Sir Henry Drake-Brockman very kindly translated as Urdu) of the native names of the subjects portrayed. 'With the contents of this package I was shown a portfolio containing paintings in colour of a few Indian flowers, inscribed with both their trivial and systematic names. Pasted on one of the front pages of this portfolio was a leaf on which was written "Elizabeth Gwillim, Madras, 1800–1806." While I was examining these drawings and asking for more, a salesman happened along and said to the proprietor, "I think that before I went to France in 1914 I saw a collection of bird paintings down stairs." Shortly afterwards this clerk appeared bearing an immense, dust-laden, but extremely well made portfolio about five feet broad and four high. I noticed that it was brass-bound, provided with a safety lock and a wide wooden back. It must have weighed thirty or forty pounds. On it were painted barely decipherable initials and a date—"E.C.K. 1800". The contents amazed and delighted me. I do not claim to be an art expert, but I realized at once that the paintings of Indian birds in the pockets of the giant container were by the hand of no mean draughtsman.

'We are all well acquainted with the productions of brush and pencil wielded by "ladies of quality" during the Georgian and early Victorian periods, and I fully expected to find these amateurish efforts displayed in the bird drawings, despite the rather favourable impression made on me by the paintings of the fishes and flowers. But I was agreeably mis-

taken; not only were the birds—so far as I then knew them—faithfully depicted as to plumage and posture, but the backgrounds were painted in a fashion worthy of Keulemans or Grönvold. They were in water-colour, carefully finished and on fine paper. Some of them were mounted, and all were numbered in the handwriting of the artist. Many bore (on the backs mostly) descriptive notes—measurements, colour-indications, and other data. Generally the systematic title, sometimes only the English or vernacular name, was appended. On some pictures there was no legend; on others only the genus was given. In addition to the completed drawings there was a small collection of unfinished sketches evidently the usual "studies" of the artist.

'Some of the paintings bore faint, but elaborate, pencilled descriptions of the bird-subject, references to its habitat, life-history, nesting-habits, öology, food, sexual differences, &c., showing that the artist was, for her day and generation, a well-informed zoologist.

'In every instance an appropriate background —Indian landscape, trees, shrubs, on which the particular bird was accustomed to roost, flowers, fruit or animal food on which it fed—was provided.

'In addition to notations by the hand of the artist herself the reverse of each portrait showed, as in the case of the drawings of the Indian fishes, a trade number, as if the collection had been prepared for public sale or auction.

'After I had acquired this rather remarkable "find", I naturally tried to trace the paintings to their original source, but in vain. All the dealers could tell me was that they were purchased by them 'at a sale in the country' many years before, but exactly when and where they could not remember, and were unable to discover, as no record of the sale had been preserved. From time to time the portfolio had been resurrected and an occasional picture sold; it was impossible to say who bought these odd lots.'

The Compiler cleaned the Gwillim pictures of their century of dust and other accumulations, and was much pleased to find that, chiefly owing to the fine quality of the drawing-paper, there was very little 'foxing' visible, and that the well-constructed portfolio had further preserved them. The colors were remarkably well preserved; many a brilliant hackle, mantle, wing, and tail seemed as freshly depicted as when they were painted more than a hundred years ago.

In all there were 121 drawings, and as the highest of Lady Gwillim's numbers was 201 (corresponding to 180 of the supposed dealer) it may be assumed that she had at one time and another painted at least the first number of bird-portraits, most of them distinct species.

These 121 pictures give one a fair idea of the avifauna—indigenous and migrant—of Southern India. Comparing them with Jerdon's list and with the fuller catalogues of Blanford and Oates, there are, of course, many gaps, many genera not represented at all; but, considering the circumstances, one can easily believe that if the artist had lived a few years longer she would have made a gallery of Indian bird-pictures of the greatest scientific value, worthy to rank with the major collections of the world.

The importance of the collection may warrant a few further remarks about the individual pictures, as well as about the artist herself.

In the first place, almost all the drawings are life-size. If one reflects for a moment that Indian birds include many of the largest of the Old World avifauna, the reason for the immense portfolio just described is clear.

For example, the painting of *Ardea cinerea* measures, exclusive of the mount, $33\frac{3}{4}$ in. × 24 in.; of *Dissura episcopus*, $25\frac{1}{2}$ in. × 24 in.; *Herodias alba*, $26\frac{1}{4}$ in. × 20 in.; *Ardea manillensis*, $26\frac{1}{4}$ in. × $19\frac{7}{8}$ in.; *Botaurus stellaris*, 30 in. × $24\frac{1}{2}$ in.; *Pseudotantalus leucocephalus*, 25 in. × $21\frac{1}{4}$ in.; *Gallus sonnerati*, still larger.

It has been the proud belief of Americans, the Compiler included, that J. J. Audubon first produced full-length portraits of the

largest birds, and certainly the pictures of the male and female Wild Turkey, of Washington's Eagle, &c., and their exact reproduction in the elephant folio bear out that claim. However, *so far as originals are concerned*, we must now concede the palm to Lady Gwillim who, so far as known, is the first artist-ornithologist to paint full-sized and exact pictures of any considerable number of birds whose length exceeds, say, 30 inches.

'I asked a number of trained ornithologists to examine and give me their opinion of the scientific and artistic value of the collections, among them Mr. Stuart Baker and Mr. Kirke Swann. The latter carefully revised the systematic names of the Birds of Prey, and expressed his complete satisfaction with the manner in which they had been depicted by the artist. Mr. W. L. Sclater also kindly looked over the portfolio and agreed that its contents would be of distinct value to students and would form a desirable addition to any research library. He pointed out that in the evident faithful delineation of *living* subjects the pictures formed a striking contrast to those common but really valueless drawings supplied by native artists of Indian birds. Moreover, they were likely to be free of those errors (discoloured and faded wattles, legs, ceres, mandibles, &c.) sometimes made by even our best artists who were obliged to make their drawings from bird-skins, in which decided colour-changes occur after death. Lady Gwillim, having been in a position to command live birds or recently killed specimens, had been able to avoid such mistakes.

'Having settled the status of her pictures, it remained to find out something about the artist. I have consulted all the ordinary and most of the extraordinary sources of information that would occur to one interested in the matter, but with meagre results. Many authorities—among them Sir Henry Drake-Brockman (I.C.S.), Sir William Foster of the India Office, Canon Bannister, the well-known genealogist of Hereford, whence Lady Gwillim's husband came to Madras, the Librarian of the Inner Temple, Mrs. Frank Penny, the Madras historian and well-known Indian novelist, and several others, who seemed likely to furnish some account of her life and career as the wife of a distinguished Indian judge—very kindly assisted me in this quest. In addition, I have carefully searched all the biographies, both British and Indian, at my command and have diligently explored, while in that city, all the Madras public libraries, including the files of the Madras Government *Gazette* and records in the Connemara Library at Madras. Through the courtesy of the Garrison Chaplain, The Rev. C. E. De la Bere, I was permitted to examined the Parish registers of St. Mary's Church and to copy the inscription on Lady Gwillim's tomb. I regret to say that the information thus acquired is small in amount and of disappointing character. The Government *Gazette*, the only newspaper published in the Presidency at the time, gives only the usual formal notice of the lady's death, omitting her maiden name and birth-place. As Sir W. Foster remarks, obituaries of women of title were not fashionable at the beginning of the nineteenth century.'

Briefly, all the vital data the Compiler could secure up to the present time is as follows: Elizabeth Gwillim (maiden name unknown) was born (about) April 21, 1763, and came to Madras in the year 1800 with her husband, Sir Henry Gwillim (just made K.C.M.G.) of Hereford, one of His Majesty's Puisne Justices of the newly-formed Supreme Court of Judicature. She died Dec. 21, 1807 (at the early age of 44), and was buried in St. Mary's Church, Fort St. George, Madras.

Among colored drawings employed to illustrate published works one of the best examples is the well-executed collection in the Blacker Library of Philip Henry Gosse's *Illustrations of the Birds of Jamaica*. These drawings are the originals of the 52 colored plates, 4to., London, 1849.

Because of its interesting provenance the library copy of John Walcott's 'Figures' (1788–9) is worthy of a brief note. It has two

original drawings by the author of the 'Kite-fish' and the 'Six-lined Lizard' inserted with the author's bookplate; also an inscription of a former owner on the title-page, 'Presented to me by his son, W. Walcott, 1817'.

In this connection, a title of interest to the student of New World ornithologic literature is the following, in the E.S.W. Library: 'J. Gundlach's (1810–1896) original drawing book, 1852, 8vo, pp. 121+2, Cardenas, Cuba.' This unique volume has about 67 spirited outline drawings of birds, with a loose leaf sketch of another taken from a letter addressed to Gundlach and postmarked 'Habana, 18 Oct. 1852'. It is addressed to him at Cardenas, Cuba, where he lived for many years. The birds are in each instance given their English, Spanish and zoological names. This item was secured for the E.S.W. Library through the courtesy of Dr. Chas. W. Richmond.

Among modern natural history artist-illustrators (many examples of these in the McGill collections) none is better known than Hendrik Grönvold, with a studio in the British Museum. He it was who painted the life-size portrait of the Amazon parrot, John IIIrd, now decorating the walls of the E.S.W. Library. All his drawings (plain and colored) illustrating Kirke Swann's monograph on the Accipitres (continued after the death of the original author by Alex. Wetmore) are in the Blacker Library, with many more in the best style of the artist.

Every large library inevitably collects in the course of time printed books that are so rare that they are not on the shelves of other collections of even greater size and importance. Of natural history libraries that of the British Museum stands pre-eminent, and its catalogue is the standard reference work for libraries and bibliographers in that special field. To possess a literary item of zoological interest 'not in the British Museum', meaning thereby not listed in its Natural History Catalogue so far printed, raises its value, commercial and bibliographic, considerably and indicates a probable *rarissima*. The McGill libraries have their share of these very rare items, a few of which may be mentioned at this time.

Among the many interests in life possessed by the famous diarist, Samuel Pepys, was his library. In his diary he several times mentions his collection of books, mostly bound in uniform calf, the covers stamped with the Pepys arms and further decorated with his book-plate. He was fond of arranging and indexing his roomful of literary treasures and of reading favorite volumes. He left this collection with its bookcases, manuscripts, diaries, and other appurtenances to Magdalene College, Cambridge, and there, in a building set apart for the purpose, it is displayed for all the world to see.

Now it happened that John Ray, president of the Royal Society, of which Pepys was also a member, wishing to give the diarist a worthy book for his library, presented him with a copy of the well-known Ray-Willughby treatise on *Birds*. It was the English folio edition, beautifully bound in leather. Ray had it rubricated throughout and, in addition, the usual black and white plates of the original *were carefully colored*. An inscription told the occasion of the presentation. The recipient had his coat-of-arms stamped on the covers and, of course, added his book-plate. It was a fine accession to the Pepys collection.

On the death of the diarist his executors very properly decided to present a few library duplicates to relatives. They found two examples of Willughby's *Birds*—one the usual plain copy and the other the Ray presentation. By some unexplained error the latter was handed over to a Mr. Jackson—Pepys' relative—and the other retained in the Library. After the lapse of a couple of centuries this historic volume came on the market and was purchased for the Blacker Library and is now one of its chief treasures.

There is some doubt as to the first printed book on (scientific) comparative anatomy but probably it is Giovanni Germano's rare folio, *Trattato delli più principali animali—con il corpo humano*, with copperplate illustrations,

published at Naples, 1625. The Blacker Library has a copy, so far as the Compiler knows, the only one in the New World.

The McGill libraries possess practically all the important treatises on bird life in America prepared by John James Audubon (1780–1851). This famous naturalist was born in Santo Domingo, his father being John Audubon, a French naval officer. The boy was taken to France, where he attended a military school and for a brief period studied drawing; then he came to America. A year spent on his father's farm near Philadelphia in hunting, studying, and painting birds proved a good introduction to his future career. A chequered period followed attempts to repair his father's financial losses in the West Indies, and had it not been for the devotion and assistance of his wife, Lucy Bakewell Audubon, we would probably never have heard of the artist. She practically supported the family and encouraged Audubon to travel to Europe and about America gathering subscriptions for his now world-known Atlas, *Birds of America*. After the publication of the text for the plates he returned to the home of his adoption and brought out additional works on faunal life, including (in collaboration with Bachman, father-in-law of his two sons) a work on American quadrupeds.

The library copy of his first and most important work, the remarkable *Birds of America*, issued in 'elephant' folio style, 1827–38, is a subscription example purchased for the general library by 100 merchants of Montreal in 1860. This copy, in its original covers, contains a list of the donors that forms a roster of the best known citizens of the day in that Canadian city. The gift shows not only their pride in the University but proves their intelligent interest in scientific pursuits.

The format of the original atlas resulted from Audubon's desire to reproduce life-size portraits of all the birds he painted and, as the male Wild Turkey required 'double-elephant' folio sheets, all the plates were published of that size. When these imposing series (435 hand-colored plates, 1,065 life-sized figures of 489 supposed species of birds) were exhibited in Edinburgh they became the talk of the town, as they were considered the first attempt to depict birds life-size painted from nature in their natural poses and provided with such sylvan backgrounds and other surroundings as they commonly preferred.

The McGill copy of Audubon's 8vo edition (1840–4) has inscribed on a blank title-page the following interesting note: 'Montreal, L. C., Sept. 29/42. It is with delight and the most grateful sentiments of my poor heart towards you that I subscribe myself as your sincere friend and servant, John J. Audubon. To Frederic Griffin, Esq., Montreal, Canada.'

As every student of the literature of American ornithology knows, Elliott Coues' *Instalments* were intended to be a prelude to a 'Universal Bibliography of Ornithology'. In this connection one is reminded that Coues was under considerable obligation to his friend Professor Alfred Newton, of Cambridge, England, for assistance, advice, and encouragement in the preparation of his *Bibliography*. One of the treasures of the E.S.W. Library of Ornithology in McGill University is an autographed copy from Newton to Dr. Elliott Coues, 'with the compiler's kind regards', of those 'Extracts from the Record of Zoological Literature, Vols. I–VI, containing the portions relating to Aves from 1864–1869'. This compilation proved of great help to Coues in assembling data for his great work; and the copy in question is full of his marginal notes and bracketed paragraphs indicating the transference of numerous references whose verbiage one may readily recognize in the pages of the *Instalments*.

The Blacker Library possesses ample evidence that when Coues decided he would be unable to finish the work so happily and successfully begun he did his best to engage the activities of others to that end. The account of one of these efforts—that unfortunately ended in failure—is in the form of a letter accompanying a presentation copy by the

author of the *Instalments* 'to his friend W. Ruskin Butterfield'. This communication refers to an arrangement made two years before his death by Coues with Ruskin Butterfield to proceed with and complete the publication of the *Bibliography*, so far as it concerned British Birds. For this undertaking, Coues offers every assistance in his power, including the use of his collection of unpublished notes.

Another item of interest to zoology bibliophiles is the Godman copy of that rare serial, Sir William Jardine's *Contributions to Ornithology*, 1848–53, 5 vols., with 101 col. pl.—in the Blacker Library. Two of the volumes have laid in an A. L. S. from Jardine on matters connected with the *Contributions*.

The E.S.W. Library has also an incomplete set with the original covers, and numerous MS. notes dealing with the difficult and disputed questions of the months of publication. It may be added that the dates on the covers are quite misleading and throw little light on the actual month or year of publication.

Among rare and interesting volumes in the E.S.W. Library is a unique variant of the *editio nova* (1809) of John Latham's well-known *Index Ornithologicus*. The appended notes to that title were written for the present Catalogue at the Compiler's request by Dr. Charles W. Richmond, from whom the Compiler was able to secure the copy—truly a bibliographical curiosity. 'It is of particular interest', says Dr. Richmond, 'on account of the many manuscript corrections and explanations. At the end of the work are what appear to be *two* printed title-pages, one in French and the other in Latin, both dated M.DCCC.IX, and both differing from ordinary copies. There are MS. corrections on each, with autograph additions by the hand of Milne Edwards (from whose library it was purchased) that include references to the pages where he had made *notes de moi*.'

A description of this unique volume, and giving its history, are notes in French (tallying with Dr. Richmond's annotations) in the handwriting and signature of the first owner and editor, Eloi Johanneau. These MS. notations begin 'Ex lib. Eligii Johanneau'. The first of the (front) double title-pages was later pasted in (*teste* 'Anno XII') doubtless to satisfy the regulations of the French (Republican) Government. There is also a *Préface de l'Éditeur* (pp. xiii–xvi) bound in at the end with various MS. corrections; p. xii consists of 'emendanda', continued on pp. xiii and xiv, with a *praefatio auctoria* on pp. xv–xvi. At the end are 3¼ MS. pages bound in. The *Préface* is subscribed '*Paris, ce 15 Juillet, 1809*, Eloi Johanneau'. The *Praefatio* is abbreviated from the *Index Ornithologicus* of Latham.

The library copy of the rare *Compendium of the Ornithology of Great Britain*, written by John Atkinson in 1820, belonged to Sir William Jardine, who made the following annotation on a blank fly-leaf: 'This copy of Atkinson belonged to William Yarrell, and was purchased at the Sale of his Library, 15th Novr. 1856 for £1. 1. 0. All the notes in pencil throughout the vol. are Mr. Yarrell's—Wm. Jardine.'

Of volumes that are *rarissima* (whose possession is due mostly to persistent search and the expenditure of dollars) the McGill libraries have the usual share. The evaluations in the appended Catalogue generally note unusual or scarce items, but a few of the more noteworthy items may be mentioned here. One of these is the original edition of William Turner's *Avium precipuarum . . . apud Plinium et Aristotelem*, &c., a small octavo printed in 1544, at Cologne; a well preserved example is among the treasures of the Blacker Library. This title is marked 'wanting' in the Cat. Br. Mus., 1915, and it is undoubtedly a very rare little classic. There is a translation of this book by A. H. Evans, published in 1903.

An extremely rare *Canadiana* (no copy in the Br. Mus. Nat. History, the Smithsonian, nor in the Ayer Library) is Sir James Lemoine's *Tableau synoptique de l'ornithologie du Canada*, 1864, published in Quebec. The only other copy known to the Compiler besides that in the E.S.W. Library is a better example in the library of the National Museum of Ottawa.

In the Blacker Library are several extremely

rare copies of that *opus magnum*, the *De Proprietatibus Rerum* of the Minorite, Bartholomaeus Angelicus, who flourished about 1250 A.D. The earliest is dated A.D. 1481 and may be described as follows: Gothic letter, 456 ll. the first and last blank, first initial of each book supplied in red, green, and mauve, other initials and paragraph marks in red, rubricated throughout, stamped morocco, g.e. by Riviere; fol. Cologne. Johann Koelhoff.

This is the *second* Cologne edition. The first one was issued in 1472, having been printed in that town by the famous English printer Caxton. Its author, professor of theology in the University of Paris, should not be confused with Bartholomew de Glanville (like our author an English minorite monk) who lived about A.D. 1360. The copy in hand is a remarkably fine and clean example, wanting only two blank leaves.

A previous owner of this Blacker Library copy has written in the following comments: 'The book before us is no doubt one of the earliest specimens of Caxton's art, although it it issued to the public as a work of Koelhoff.'

Caxton, on the termination of his apprenticeship to a merchant or mercer in London, in 1442, went into the Low Countries, either on his own account or as the agent of some merchants, and resided abroad for thirty years. Whilst there he studied the art of printing on the premises of Koelhoff, during which time he was assisted by Wynkyn de Worde, a native of Lorraine.

The first specimens of their craft were the present publication, *The Game and Play of Chesse*, &c., several of them not being actually issued until some years afterwards and then without date or place.

Caxton returned to England in 1472, afterwards going back and forth to the Continent, his first book printed in Westminster bearing date 1477. It was during these migratory visits that he began and finally completed the 'Bartholomaeus', which he left with his friend and instructor Koelhoff, to be published by him under his own name, whenever he chose. It was not until three years afterwards that Koelhoff presented to the world this magnificent edition of an extraordinary work.

It is from the first printed English edition that we quote the authority attributing the printing of this Latin version to Caxton. In the 'Prohemium Bartholomei de Proprietatibus rerum'—a series of introductory verses—he thus writes: 'and of your charity call to remembrance the soul of William Caxton, first printer of this book in Latin tongue at Cologne, himself to advance that every well disposed man may therein look.'

In the Osler Library is a somewhat later edition (A.D. 1482) printed at Lyons; Hain—C. 2503.

The first English translation was made by John of Trevisa for Sir Thomas Berkeley in 1397, and it was printed in London in (or about) 1495 by Wynkyn de Worde.

In the edition of 1495 the English names of the birds appear in the first paragraph of a chapter instead of at the head with the one Latin name.

Of the nineteen books into which the work is divided, Book XII is devoted first to 'De Avibus in generali', followed by accounts of 'Aquila, or Egle'; 'Ancipitre, or Gosehauke'; 'Alieto' [= Sparrowhawk?]; 'Apibus, or Bees'; 'Bubo, or Owle'; 'Columba, or Culuour' [=Dove]; 'Coturnia, or Curlewe'; 'Ciconia, or Storke'; 'Cornix, or Crowe'; 'Corvo, or Rauen'; 'Cigno, or Swanne; 'Culix, or Gnatte' [the fly]; 'Cicada, or Grasshopper'; 'Fenix' [= Phoenix]; 'Grus, or Crane'; 'Gallus, or Cocke'; 'Gallinaceo, or Capon'; 'Gallina, or Henne'; 'Grype' [=Griffon]; 'Herodius, or Faucon'; 'Hirundo, or Swalowe'; 'Kaladrius' (?); 'Larus' [a gull]; 'Locusta' [locust]; 'Mergulus, or Cote'; 'Milvus, or Kyte'; 'Nicticorax, or Nyghte Crowe'; 'Onocrocalus, or Myre-drumble'; 'Pellicane'; 'Perdix, or Pertriche'; 'Pavo, or Pecoke'; 'Passeres, or Sparrowes'; 'Strucio, or Ostriche'; 'Turture'; 'Vulture'; 'Ulula' [= Bittern]; 'Upupa, or Lapwynge'; 'Vespertilio, or Remouse' [the bat].

See, also, an account of another English translation, 1582, in this Catalogue.

A collation of the (first) Spanish edition from a copy in the hands of Maggs Bros. is the following: *18th Sept., 1494. De las Propriedades de las Cosas. El libro de proprietatibus Rerum en Romance.* Folio. Gothic letter, double columns of 46–7 lines. With the (woodcut) Arms of Spain, sixteen large woodcuts, and a large woodcut printer's device on a black ground. Woodcut initial letters. Head-lines. Rarissima. Toulouse, Henri Mayer, 18th September. Hain 2523 (without seeing it). Proctor 8722. Pellechet 1887.

Forty-six leaves (gg 1-mm 8), including the entire Book XVII, 87 pages, 'De Los Animales', from the above edition of this book describe 110 animals, preceded by several pages relating to animals in general.

Of this extremely rare incunable McGill has only a portion, presented to the Library of the Medical Faculty by Maggs Bros., London. This excerpt comprises 13 ff. which include the complete Book III, *Del Anima*, treating the several Senses. Beginning on the verso of (script) folio 24 is a discussion of *Vision—Del sentido dela vista*, illustrated by two woodcuts in the text.

A facsimile of the general title to the volume is prefixed, and on the verso of the leaf is drawn a fifteenth-century picture of the crucifixion, which does not appear in the original volume.

The Compiler had the 13 leaves bound (in imitation of contemporary binding) by Zaehnsdorf, and forwarded the volume, thus embellished, to the Medical Library.

The collation of the second English edition (in the Blacker Library) reads as follows: *De Proprietatibus Rerum.* (In English.) Black-letter, double columns of 50 lines. A.D. 1535, London. Thomas Berthelet. Second edition in English. Sm. fol. Fol. 226 misplaced. Very rare. Lowndes regards (vol. ii, 898) this edition as the *chef-d'œuvre* of Berthelet's press. This famous work is really a compilation in nineteen books from various departments of human knowledge, *and was the encyclopedia of the Middle Ages.* Berthelet's device is only found in a few copies (missing in this instance), the others having the last page blank, and very often the last leaf containing it is wanting altogether.

The title of another English print is 'Batman uppon Bartholome, his Booke *De Proprietatibus rerum*; tr. fr. the Lat. by John de Trevisa.' Folio. London. T. East. fol. 86–425. 1582. The work begins with Bk. 7 *De infirmitatibus*, and ends with Bk. 19 *De Instru. musicis.*

The copy in hand includes the zoological portion, translated by Stephen Batman. It is an extremely rare edition; this copy, in the Blacker Library, has been carefully compared with the British Museum copy, and found to agree with it.

Still another *rarissima* is Paul Barthez' *Nouvelle mécanique des mouvements de l'homme et des animaux*, of 262 pages, published at Carcassonne in 1798. It is a scientific contribution to a study of aerial flight. In the last three propositions of the first section (pp. 43–8) the bipedal posture of the bird at rest is considered. The sixth section (pp. 190–245) is a treatise on the flight of birds. This work is of historic importance for aviation, following upon that of Borelli in the seventeenth century to be described later.

Another treasure of the Blacker Library is a manuscript of 44 large octavo pages by Sir Joseph Banks, written in his own hand and giving an account of his Voyage to Iceland in 1722, after his return from the journey round the world with Captain Cook. This scientific survey of the polar regions was undertaken at the request of Lord Sandwich, First Lord of the Admiralty. Banks was on that occasion accompanied by Dr. Solander and several assistants whom he engaged at his own expense.

A rare and important item for zoologists is J. P. A. Leisler's *Nachtraege zu Bechsteins Naturgeschichte Deutschlands*, two parts, 1811–15 (all pub.). The library of the London Zoological Society is the only British collection that has a complete copy; and there is another in the Field Museum (Ayer Library) Chicago.

The E.S.W. Library is glad to have Heft I; Heft II treats of bats.

An interesting copy of the rare (Dutch) first edition of Georg Rumpf's *Amboinsche Rariteitkamer*, Amsterdam, 1705, is in the Blacker Library. It is provided with an extra engraved title-page, and gives one of the best and earliest accounts of marine life in the seas of Amboyna.

The following collation describes another rare treasure in the Blacker Library:—Anonymous. *1551. Contrafactur aller vierfüssigen Thier-Eygentliche und gantz artliche contrafactur* (4 lines). Getruckt zu Strassburg durch Balthassar Becken. Erben. DMLI. Sm. fol. Gothic letter. 32 leaves, 61 large, virile woodcuts ($5\frac{3}{8} \times 4\frac{1}{8}$ in.) of animals. Bound by Riviere. No letterpress except full page title and names of animals. On the *recto* of first leaf, in script by a contemporary hand: 'Franciscus Rossius Noëus, Chirurgus paris, 1551.' Excessively rare, not in British Museum, nor listed by Banks, Brunet, Graesse, nor is it in the *Catalogus Bibliothecae historico-naturalis.*

Another very rare treatise of 356 folios, not listed in the Nat. Hist. Cat. of the Br. Mus., is Jacques Le Fèvre's *Paraphrases*, A.D. 1521. This ambitious work endeavors to furnish in one volume all the fundamental knowledge known to date on natural philosophy.

Among the rarities, mainly the result of limited numbers and private printing, is T. W. Blakiston's *Amended List of Birds of Japan.* There is no copy in the Br. Mus. Nat. Hist.

Another McGill library rarity is listed in the Catalogue as: *1720? Miscellania curiosa de avibus.* On birds. Pp. 122. 95 pl. sq. 8vo. MSS. in English and Latin with original drawings of English and American birds.

This curious manuscript describes, with the help of Ray's *Synopsis* and other contemporary sources (quoted by the unknown author and artist), over 200 species, with colored drawings of 98. It is in the E.S.W. Library and may be of interest to research scholars. Internal evidence indicates its production in the beginning of the eighteenth century.

A number of interleaved treatises with copious notes and marginal additions—evidently in preparation for an *editio altera* that may or may not have been published—are in the McGill libraries. These unique items have something more than a passing interest and value and are regarded by the Compiler as worthy of record.

One example of these is James Backhouse's *Handbook of European Birds*, 1890. The library copy is interleaved and prepared for a second edition which, so far as the Compiler knows, was never published. The original edition is quite rare, no copy being noticed in the Cat. Br. Mus. (Nat. History) nor in the Zimmer Cat. of the Ayer Library, Chicago.

In the E.S.W. Library is the following title: L. P. Vieillot, 1816, *Analyse d'une nouvelle Ornithologie élémentaire.* 8vo, pp. 70+1. Paris. This is the rare *editio princeps* of a small but extremely important volume reprinted by the Willughby Society. The present copy bears the signature of A. Milne Edwards and was auctioned off at the sale of his library. There is a very neatly hand-printed list of 'errata' at the end of the copy. In the opinion of Dr. Chas. W. Richmond, through whom the E.S.W. Library was able to acquire the item, and to whom the Compiler is indebted for the following notes, the errata are all taken from the *Nouv. Dict. d'Hist. Nat.* (? vol. xxiv) or from some other of the author's writings of 1817 or 1818. 'There are about 120 new genera proposed in the present work as well as 16 new species. See, also, Mathews, *Birds of Australia*, Supplt. No. 5. The author tried to publish this work for two or three years before it finally came out. In spite of Vieillot's industry and activity, not to mention originality, some people tried to give him a black eye, and Temminck even published a pamphlet (*Observations sur la classification méthodique des Oiseaux, et remarques sur l'analyse d'une nouvelle Ornithologie élémentaire par L. P. Vieillot*), dated 1817 in which he answers Vieillot.'

Taking them at random, two very rare titles in the Blacker Library (neither of which

appears in the Cat. Nat. History Br. Museum) are Graefe and Naumann's *Handbuch der Naturgeschichte des Tierreichs*, 1836, and A. J. Lottinger's *Histoire du Coucou d'Europe*, 1795.

As is the case with all large natural history libraries of the New World the McGill collections are ill supplied with manuscripts and are especially defective in codices written before the invention of printing. The Compiler may therefore be excused if he quotes at some length descriptions of three Persian treatises on zoology one of which, and perhaps two, were copied before A.D. 1450.

The following notes on these extremely rare treatises were furnished by Colonel H. Murray of Simla, India, in whose possession the three manuscripts were at one time, and by Professor Syed Azhar Ali, M.A., a well-known authority on oriental manuscripts. The latter believes the three works, with their fine illustrations, constitute a 'rare treasure that should never have left India'. The remainder of the annotations is extracted from a detailed description of the second item, *Farah-Nāma-i-Jamali*, published during 1929 in the *Journal of the Royal Asiatic Society* by W. Ivanow of the Asiatic Society of Bengal, author of many works on oriental literature and former curator of Persian manuscripts in the Imperial Library at St. Petersburg.

Elsewhere it is recorded that the original of the *Nuzhat-Nāma* was written in Gurgan and Astarabad during a period of non-employment and adversity by Shah Mardan, son of Abil Khair, when he excerpted and translated from other Arabic works such facts and observations as he considered worthy to be presented to the public. He made a number of separate books in this way, one of which he called *Badir*. This one he revised and enlarged to form the *Nuzhat-Nāma*.

The *Nuzhat-Nāma* is divided into *two sections*, the first one into six chapters—on anatomy, 'temperaments', animals (mammals), birds, reptiles, insects, trees, minerals, &c.

The *second section* of the *Nuzhat-Nāma* deals with astronomy, astrology, and similar subjects.

The original manuscript of the *Nuzhat* was written in the fourteenth century A.D., after the Dilamites had thrown off the yoke of the Bagdad Caliphate.

The small, *second part* of the collection is a separate treatise of 10 pages written by Ibrahim, son of Abdul Jabbar. It deals mostly with botanical subjects, and is probably an original treatise. At least no name is entered as copyist, and it is without date.

The *third work* in this bound volume is entitled *Farah-Nāma-i-Jamali*. It was written in A.H. 899 (about A.D. 1519) by Abu Bakr, son of Muzhar, son of Muhammed, son of Abul Casim, son of Abi-Said-il-Jamal, known as Yazdi (citizen of Yazd).

The author states that while it is largely a compilation of natural science, none of the contents of the *Nuzhat-Nāma* have been repeated. The compend appears in two parts, each subdivided into chapters.

Chapter I of the *first section* deals with anatomy; Chapter II with mammals; Chapter III with birds; Chapter IV with reptiles; Chapter V with the vegetable kingdom and agriculture.

Chapter I of the *second section* deals with the four seasons and their relation to the sky, space, and time; Chapter II treats of arithmetic, astrology, logic, accounts, and the decisions and judgments of Ali, the Fourth Caliph and son-in-law of the Prophet.

Like the second treatise, this work is certainly an original manuscript. There is no mention of the copyist, but it was evidently written to supplement and bring up to date the information supplied by the other two monographs. Also, no date is given of any copy.

Mr. Ivanow, in his report on the *Farah-Nāma-i-Jamali* notes that until recently 'only one copy of the work is so far known, viz., in the library of the British Museum; it is slightly incomplete at the end, as described by C. Rieu, in his *Catalogue of the Persian Manuscripts*, vol. ii, pp. 465–6. Not long ago, Dr. Casey A. Wood, the well-known ornitholo-

gist, a professor of Stanford University, while on a tour in Kashmir, acquired another copy of this rare work, bound in one volume with the *Nuzhat-Nāma-i-Alā'ī*, and a fragment of another work in the same style'.

These three quite unique Persian manuscripts, all dealing with Natural Science, are bound together in one (original) cover.

The first manuscript is entitled *Nuzhat-Nāma-i-'Alā'ī*, or *Alla's Book of Happiness*, the name of the Patron to whose order the original manuscript was written being Alla-ud-Daula.

There are only three known complete copies of this work, one in the Bodleian Library at Oxford, one in the Ducal Library at Gotha, and the present copy.

The present manuscripts are elaborately illustrated with hundreds of colored drawings in the best style of the fifteenth century, a circumstance that greatly enhances the scientific, artistic, literary and, one may add, the commercial value of the collection.

Illustrated manuscripts of Arabic and Persian medieval works dealing with natural history, accompanied by drawings of the best artists of the period, are of the greatest rarity.

Without doubt it was the intention of the naturalist who wrote the third section of this collection, and who is responsible for the whole, to bring together all that was known in his day of natural history. To that end he adopted, first of all, the correct plan of reproducing *in toto* what he regarded as (and what probably was) the most authentic work on the general subject. With this he incorporated a few additional, original pages by a second author and, finally, he supplemented these works, one original and the other a more extensive but published monograph, by his own contributions taken from various sources, but contriving as far as possible not to duplicate the observations of the other two writers.

The colophon records that the copying of the first work—the *Nuzhat-Nāma*—was completed on Sunday, the 9th of Rabinawwal, Anno Hegirae 807, i.e. about A.D. 1427, and that the copyist was Ali son of Mahmud, son of Mahammud Suruamed Sayingh, of Shiraz.

The third page shows the seal of Mahabat Khan, Commander-in-Chief in the reign of Emperor Jahingir, and records the fact that the three books were part of the library of the former's son, Aman-ullah Khanazad-Khan-Feroz Jung.

The transcript not only contains the last two chapters, missing in the British Museum copy, but also gives very interesting variants of the latter, especially in the passages relating to the date and the place of its composition.

The student who is interested in oriental *zoologica rarissima* must not fail to read also the chapter on Oriental Literature where, in addition to the books just mentioned, are described several of great interest, some of them extremely rare.

An almost unique title (in the Blacker Library) is the first edition of G. A. Borelli's *De Motu Animalium*, 1680–1, wherein is described, for the first time in print, an explanation of bird flight based on the theory of the lever and aerial resistance. Even subsequent editions are rare; the *editio princeps* is not catalogued in any other library known to the Compiler.

A very rare zoological item (in the Blacker Library) is the original edition of Scopoli's *Deliciae Florae et Faunae Insubricae*, 1786–8, the ornithological part of which was reprinted by the Willughby Society in 1882.

In the Blacker Library, also, is the beautifully written original manuscript (with plates and portraits) of Antoine Fée's well-known *Vie de Linné*, 1832, probably the best of the French biographies of the great Linnaeus. The illustrations of this manuscript are fresh and clear —probably first states of the plates—and the volume in hand establishes the fact that it was really ready for the printer in 1831.

One of the most interesting and among the most valuable of the manuscripts in the Blacker Library is one of 46 folios by Isidore Geoffroy Saint-Hilaire, dated 1833, entitled *Considérations sur les caractères employés en ornithologie*

&c., an original essay on the classification of birds.

Of considerable interest, also, is a manuscript copy, dated 1808 (Blacker Library), of Dame Juliana Berners' *Treatyse of Fysshynge wyth an Angle*, 1496—that rare Wynkyn de Worde item—by the hand of Sir H. Ellis, Chief Librarian of the British Museum who, more than a century ago, carefully copied the excessively scarce original with his own hand.

Of interesting volumes in the E.S.W. Library unique because of a *provenance*, mention may be made of Jerdon's copy of Prince Bonaparte's *Conspectus generum avium*, that famous quarto, published 1849–57. It is interleaved, and Dr. Jerdon has made on the blank pages many manuscript notes.

McGill students of advanced ornithology should feel much indebted to a good friend—Dr. Charles W. Richmond—for a published variant of this celebrated treatise, which he discovered by the merest accident. In Dr. Richmond's own words:—'No one seemed to suspect that there were two editions of Bonaparte's *Conspectus* until I noted the fact over fifteen years ago. On comparing my own copy with the office volumes I found that one set was printed in type slightly smaller than the other, and that no new names had been added or other changes made in the (probably) later printing except certain typographical errors. The reason for the second edition may have been the occurrence of a fire or a demand for additional copies after the distribution of the type used for printing the first issue. You will find a note on the main differences between the two printings on p. 579, vol. 53, of the *Proc. U.S. Nat. Museum*. There are many bibliographical and other notes throughout the last three parts of my copy, some of which may be useful to you. There is, also, a note on the cancelled pages of Gray's *Genera of Birds* on p. 596 of vol. 53 quoted above.'

As previously stated, of volumes with *provenances* of interest to naturalists and collectors—presentation copies, correspondence, and other manuscripts bound in, added drawings &c.—the McGill libraries have their share. One example that occurs to the Compiler is an autograph letter, dated September 30th, 1861, from Dr. Jerdon to Edward Blyth regarding the latter's work on Indian Zoology. It is bound with Blyth's *Catalogue of the Birds in the Museum of the Asiatic Society*, 1849.

Quite a rare work, Pedro Blanchard's Birds of Portugal (*Thesouro de meninos*, 1817–19) is represented in the Blacker Library (no copy in London libraries) by an example formerly in the Royal Library, with the Portuguese arms stamped on the cover.

Of perhaps minor importance but still interesting are such volumes as a presentation copy of the seventh edition of Carpenter's *Microscope*, 1861–5, which the editor (W. D. Dallinger) has used as a scrap-book for appropriate newspaper clippings.

A *provenance* that approaches the historical is found in a Blacker Library incunabular copy of Pliny's *Natural History* (1483) that belonged to Laurentius Burellus. It contains his coat of arms, manuscript verse, and notes relating to the contents of this rare folio.

Very rare but interesting items are Bewick's Chap-Books of Natural History. These little tractates were published by the great (woodcut) illustrator and placed on sale at Alnwick, about 1827, for popular consumption. The E.S.W. Library possesses seven of these curiosities, with the cuts well-preserved and the text clear.

Every American zoologist is interested in the publications of Alex. Wilson, most of which are in the McGill Libraries. A very scarce variant of the 1853 printing (T. M. Brewer, *ed.*, H. S. Samuels, *pub.*) of *American Ornithology* is the publication by Magagnos and Co., N.Y., a word-for-word copy of the 1840, 1853, and 1854 issues except that it is prefaced by a major, colored and gilt title whose verbiage has been slightly altered. It is merely a bibliophilic curiosity.

Reference has several times been made to the 180 incunabula in the McGill libraries—

more than 30 of them of special interest to zoologists. It is not the purpose of the Compiler to mention all the *rarissima* among the latter, but several interesting items will be found in the present annotated Catalogue under the headings Rabanus Maurus, Aristotle, and Plinius Secundus. Attention is directed to a fourteenth-century MS. of Aristotle's *Historia animalium;* to the first printed edition of Pliny, and to a copy of the 1472 edition once owned by William Morris whose own beautiful typography was in all probability influenced by the printed pages of Jenson's Venetian publication.

The Osler Library, in which are shelved the great majority of the McGill incunabula, has many rare volumes of interest to the student of vertebrate zoology. One of these is the *Etymologiae* (cyclopedia) of Bishop Isidore (p. 641, *Bibliotheca Osleriana*) printed in Augsburg, 1472. Book XII is devoted to animals and was the standard authority on the zoology of the ninth and tenth centuries.

Even rarer than the foregoing (possibly unique) is the 1508 (second) edition, printed in Venice, of Oppian's poem, *Alieutikon*. This *rarissima* is not noted by Brunet, by the *Bibliotheca piscatoria*, or by any other catalogue accessible to the Compiler.

Of titles of excessive rarity even when they appear in one or more catalogues the McGill libraries have their share. One of these is a fundamental treatise, Blasius Merrem's *Beytraege zur besondern Geschichte der Vögel*, in two parts, with 12 col. pl., 1784–6. The long-established German dealer who supplied these volumes to the Blacker Library reports them as the first complete copy he had ever seen.

The E.S.W. and Blacker libraries are fortunate in having been able to acquire several of the small ornithologic albums of the artist Flamen, whose copperplate engravings of fauna are rare in all their states.

A rare folio of 128 pp. in the E.S.W. Library is C. E. Blanchard's *Recherches ostéologiques*, 1857, in which the osseous structures of birds are made the basis of a rational classification. This title is not listed in any of the usual catalogues.

The treatise of Jan van de Straet, published at Antwerp in 1566 (*Venationes ferarum*), is one of the rarest of books on venery, including animal fights (bull baiting &c.), for the delectation of the human brute; and similar perversions by man of the (?) lower animals. The excuse for the inclusion of the book in the library is not so much its great rarity as that it does deal with a use of birds and beasts that occupied much human energy for several thousand years, including the present century; moreover it is remarkably well illustrated, furnishing excellent portraits of the animals in question. The Blacker copy is unknown to the Nat. Hist. Cat. Br. Mus.

The botanist Pierre Boitard in 1827 wrote a *Manuel d'histoire naturelle* in 2 vols., Paris, which is not listed in any of the usual catalogues. The copy in the general library of McGill is the gift of Sir Donald Smith.

Another exceedingly rare (when complete) and important treatise is Siebold's *Fauna Japonica*, 1834–8, which after several years quest the Compiler was able to secure for the Blacker Library. Parts or single volumes of this well-known monograph are met with now and then but the entire system is seldom on the market.

A valued acquisition by the Blacker Library is a manuscript in the handwriting of the famous naturalist, John Gould, in which he describes over six hundred birds, evidently a part of the original copy for some of his numerous published contributions.

Both the Blacker and the E.S.W. libraries possess several rare treasures in the shape of zoological *Bonapartiana*. An interesting *provenance* is found in a presentation copy of Prince Charles Lucien's *Revue critique*, 1850, now in the E.S.W. Library and from the Godman collection. The Prince writes on the fly-leaf, 'To Mr. G. R. Gray, Ornithologist to the British Museum, London. This book is now sent for the third time. I hope it will reach

[you] with all the others'. The natural query is who 'bagged' the other two?

Another rare treasure is the fine Gurney library copy of Bonaparte's *Iconographie des pigeons*, 1857–8, with 55 colored plates—complete.

Among the rarities in the E.S.W. Library is J. C. Aitinger's *Kurtzer und einfaltiger Bericht von dem Vogelstellen*, a treatise of 372 pages, quarto, published at Cassel in 1653–4, not listed in the Br. Mus. Catalogue.

Another in the same collection is still rarer but of less importance, a poem by Ignacio da Persico, published in Verona in 1728.

The verses are in praise of the Canary which the author wrote for a friend, describing and depicting his method of teaching canaries vocal music by means of the flute. It is entitled *I Canarini* and is illustrated by several pretty vignettes. In the same Library is a somewhat similar work, published in Nuremberg in 1754, folio, 45 plates, intended to be a kind of supplement to Hervieux's well-known treatise on the Canary, but it is mostly occupied in describing certain wild birds and illustrating methods for their capture. It was written by F. A. von Pernau and the title is (in part) *Gründliche Anweisung alle Arten Vögel zu fangen*.

Of much greater value and scientific importance are the two following fundamental works by the famous originator of a theory of evolution, a forerunner of Darwin, J. B. de Lamarck (1744–1829).

The first title is *Recherches sur l'organisation des corps vivans*, Paris, 1802; the second *Philosophie Zoologique*, Paris, 1809, in two vols. Neither of these editions is in the British Museum and only one volume of the latter is in the Prussian State Library. Friedländer & Sohn, through whom the Compiler acquired these *rarissimae*, assured him that the volumes of the latter, *editio princeps*, was the first they had ever seen in the trade. The editions of 1830 and 1873 are comparatively common. Both these treatises are in the Blacker Library.

A rare tractate, not in the library of the British Museum (Nat. Hist.) but found in the Banks Collection, is the *Prosopopeia Animalium* of Johannes Ursinus, published at Vienne in 1541.

Probably issued in more than one printing is the very rare *Traité élémentaire d'histoire naturelle* of Martin Saint-Ange and others, 1834–40. The Blacker Library has the four-volume edition (48 *livraisons*), whose description the Compiler is unable to find in any of the usual catalogues.

Eugenio Bettoni's *Storia naturale*, 1865–71, in three volumes is now among the great rarities in zoological literature. Only 100 subscription copies were issued (in 48 parts) of which one complete set is at McGill.

The Blacker Library acquired a copy of the rare Balthasar Monconys' *Journal des voyages*, first edition, 1665–6. In this admirable history the adventurer describes the animal life encountered by him in his world-wide journeys.

A remarkable treatise is that of Stephenus A. Schonevelde on North European ichthyology, with remarks on piscine nomenclature—a very scarce item.

The McGill libraries have an unusual collection of G. L. Buffon's famous works, but one deserves special mention here—an 1852 edition of the birds of the *Histoire naturelle*, illustrated with 150 hand-colored plates, by two of Buffon's followers, A. Comte and Charles d'Orbigny. This very rare edition is not listed in any of the usual catalogues.

A complete (22 Hefte and 132 col. pl.) copy of *Teutsche* (not *Deutsche*) *Ornithologie* by Borkhausen and others, 1800–17, especially if accompanied by the original wrappers, is among the rarest of avian treatises. This scarce folio is in the E.S.W. Library.

In 1739 a Jesuit Father, Guillaume Bougeant, wrote a curious but interesting book on the psychology of the (?) lower animals, in which he anticipated by two centuries many modern theories, among them their possession of numerous human traits—especially powers of speech. The work (now very rare) became

immediately popular and was translated into English. Two editions are in the Blacker Library. This philosophic treatise, however, deeply offended the tender susceptibilities of the dominant church and Father Bougeant was promptly sent to prison for his temerity in promulgating doctrines unknown to ecclesiastic zoology. That palladium of scientific progress, the Church of Rome, gained a complete victory over its aberrant adherent. After thinking the matter over while in durance vile Bougeant decided to apologize for his indiscretion, did penance, and once more reposed on the bosom of an infallible hierarchy.

B. STUDENTS' AND LIBRARIANS' READY INDEX TO SHORT AUTHOR-TITLES ON VERTEBRATE ZOOLOGY ARRANGED GEOGRAPHICALLY AND IN CHRONOLOGIC ORDER.

THIS classified list is intended to furnish a ready reference to the more important printed books, codices, atlases, &c., in the various subdivisions of vertebrate zoology. As a rule only one title (presumably the most important) is given from the list of publications (including reprints and editions) of a particular author on a particular subject. Other publications, if any, in the McGill collections will be found under the author's name in the appended Catalogue.

The main purpose of this Index is to enable those unacquainted with the bibliography of Vertebrate Zoology to find in a few minutes the title of a work whose identity no catalogue reveals and which might easily escape the notice of any but a specially informed librarian. Owing to its classified arrangement it ought to be of distinct assistance to students and librarians generally.

The Introduction mentions and the Catalogue lists and annotates most of the hundred or more titles of County, State, Provincial and other monographs on the local vertebrate fauna of Great Britain, Germany and America; but the student is also referred to other sources for information because lack of space prevents the entry of many of these titles in this Index. The same rule applies to the large body of serials and periodicals; these headings will be found in the Catalogue proper.

As a concrete example of the working of the Student's Index, let us suppose that it is desired to find a modern book on the Birds of British Guiana. The titles most likely to furnish full information on the subject are (geographically) to be sought, first, under General Treatises on Animals of the World. The *Index Indicis* furnishes the page for that and other captions, and we find a recent treatise (in English) that will probably yield some of the required information, 1897. Lydekker's *Natural History*. Then we search for a history of *Birds in General* and soon find 1907, Knowlton and Ridgway. Next we turn to the Birds of the Americas and find 1918, Cory and Hellmayr. The list of books on the Vertebrate Zoology of South America follows in the work, 1904, Eugène André's *Guiana*. Finally we look up the titles under the heading Birds of South America, from which we choose the specific title *Birds of British Guiana*, a well-known treatise, 1912–17, Charles Chubb. Armed with these books a complete account of the subject is at once available.

When *information regarding a particular genus or species* apart from habitat is required as, for example, a description or the life-history of the Lemurs, Penguins, Salmon Trout, Cobras, or Salamanders, a search for titles under **Vertebrates of the World,** as well as under such (appropriate) headings as **Mammals of the World, Birds of the World, Fishes of the World,** and under **Reptiles and Amphibia of the World** will certainly yield the required data, and probably also refer the student to special monographs on the subject of the research.

How to find information regarding unusual titles in vertebrate zoology

If the treatise sought cannot readily be traced in this Students' Index—because it is not in the McGill libraries—the following method of search will be useful.

It not infrequently happens to both the advanced student and the librarian that difficulties arise in locating the proper title of a book, an atlas, a manuscript, a periodical, or other item in the literature of zoology preparatory to consulting the work itself.

The main difficulty in this quest lies, as a rule, in the possession of an incomplete or imperfect

heading. It is like searching for a person residing in New York or London, whose name is improperly spelled or the number of whose street is inaccurately given. It is as if one seeks John Smith, 2073 Bayview Street, when Henry Smith, 1073 Rayview Avenue is the correct address. Then again, an extract from or a separate of a paper in some obscure journal masquerades and is not uncommonly advertised as a distinct publication; or a perfectly legitimate serial with its own pagination is everywhere described like (to give one of many such examples) *North American Fauna*. It would need a literary divining rod to discover it as quoted in most catalogues (unless it be several times cross-referenced) where it is listed under *United States—Department of Agriculture—Biological Survey Division—North American Fauna*, 1889–date. In the appended Catalogue such misleading titles are cross-referenced to the caption under which they are most widely known.

There are many other stumbling blocks to be leaped or pushed aside before a hidden title is run to earth, but these two obstructions will serve to illustrate the point.

To continue, in nine cases out of ten a reference to our best authority, the six (so far published) volumes, alphabetically arranged, of the *Catalogue of the British Museum* (*Natural History*) will afford at once the required information. Failing that source, the item must be rare or the title in some respect inaccurate, in which case Mr. H. W. England of the British Museum (Natural History) Library suggests (and the Compiler quite agrees) that further search may be made as follows: If the date of issue be comparatively recent, i.e. between 1864 and 1930 the *Zoological Record* with its continuations should next be consulted. If no trace is there discovered, try that painstaking source of knowledge, the *Bibliotheca Historico-Naturalis* of Wilhelm Engelmann (and his subsequent coadjutors J. V. Carus and O. Taschenberg) that quite well covers the whole range of literary vertebrate (and other) zoology from 1700–1930.

There are several original (confirmatory and other) sources of information for books, &c., published before 1700, incunabula, &c.; e.g. the catalogues of Hain and Brunet; for titles appearing between 1835 and 1930 the supplements to the *Archiv f. Naturgeschichte*; between 1878 and 1930, the *Zoologischer Anzeiger*.

These investigations made and the title sought still eludes the investigator, the research student is justified in declaring either that his first-hand description of the title is insufficient or inaccurate, that the work is an excerpt from some obscure item, or that he is the lucky possessor of a *unica aut zoologica rarissima*, not recognized by the usual courts of record.

Although a few periodicals on the various sections of vertebrate zoology are included in this list, it is by the Compiler considered desirable to speak of the most important of them in a special chapter, to which the student is referred. The Catalogue will be found to be well provided with such titles in all the scientific languages. As a rule only one (usually the first) edition of a work is quoted; other printings are generally to be found and evaluated in the appended Catalogue.

The following abbreviations are employed in this Index: (Anat.)=Anatomy; (Aust.)=Australia, Australasia; (Batr.)=Batrachians, Amphibia; (Belg.)=Belgium; (Bib.)=bibliographic or biographic work; (Austria.)=the former Austrian Empire; (Can.)=Canada; (Cat.)=Catalogue list; (Class.)=classification, nomenclature, generic or specific lists; (Comp. Zool.)=comparative zoology; (Den.)=Denmark; (Dict.)=dictionary, encyclopedia; (Dist.)=geographic distribution, zoogeography; (Evol.)=evolution, Darwinism; (Ext.)=separate or extract; (G.B.)=Great Britain; (Geog.)=geographic distribution; (Ger.)=Germany, Middle Europe; (Holl.)=Holland, the Netherlands; (Hung.)=Hungary; (It.)=Italy; (Mass.)=Massachusetts; (Mus.)=Museum collections; (Neur.)=neurology; (N.Z.)=New Zealand; (Ont.)=Province of

Ontario, Canada; (Oöl.)=Oölogy, nests and eggs; (Oph.)=ophthalmology; (Paleon.)=paleontology, fossils, extinct species; (Per. or Period.)=periodical or serial; (Polyn.)=Polynesia; (Pop.)=popular; (Psych.)=psychology, animal behaviour; (Que.)=Province of Quebec, Canada; (Russ.)=Russian Empire; (Scand.)=Scandinavia; (Seneg.)=Senegambia; (Text-b.)=text-book, college manual; (Tr.)=travels; (U.S.A.)=United States; (Voy.)=Voyages, expeditions, travels; -date=A.D. 1930.

INDEX INDICIS OF STUDENTS' AND LIBRARIANS' AUTHOR INDEX

PAGE

General Treatises on Vertebrate Zoology.

Vertebrates of the World . . . 152
Birds of the World 156
Mammals of the World 157
Fishes of the World 158
Reptiles and Amphibia of the World . . 158

Africa. The Whole Continent.

General Treatises 159
Birds 159
Mammals 159
Fishes 159

Asia. The Entire Continent.

General Treatises 159
Birds 159
Mammals 160

Europe. The Entire Continent.

General Treatises 160
Birds 160
Mammals 160
Fishes 160
Reptiles and Amphibia 160

Africa. *North and Middle.*

General Treatises 160
Birds 161
Mammals 161
Fishes 161
Reptiles and Amphibia 161

Africa. *South.*

General Treatises 161
Birds 161
Mammals 161
Fishes 161
Reptiles and Amphibia 161

America. Both Continents.

General Treatises 159
Birds 159
Fishes 159

America, Middle; and West Indies.

General Treatises 161
Birds 162
Mammals 162
Fishes 162
Reptiles and Amphibia 162

America, United States; and Canada.

General Treatises 162
Birds 163
Mammals 163
Fishes 164
Reptiles and Amphibia 164

PAGE

America, South.

General Treatises 164
Birds 164
Mammals 165
Fishes 165
Reptiles and Amphibia 165

Australasia.

General Treatises 165
Birds 165
Mammals 165
Fishes 165
Reptiles and Amphibia 166

Belgium and Holland.

General Treatises 166
Birds 166
Mammals 166

Borneo. See Malaysia; Borneo and Philippines.

Canada. See America; United States and Canada.

Ceylon. See India and Ceylon.

China and Japan.

General Treatises 166
Birds 166
Mammals 166
Fishes 166
Reptiles and Amphibia 166

Egypt, Syria and Palestine.

General Treatises 166
Birds 166
Fishes 166

Europe, Middle. See Germany and Middle Europe.

Europe, Northern. See Scandinavia and Northern Europe

Europe, Southern. See Italy and Southern Europe.

France and Switzerland.

General Treatises 166
Birds 167
Mammals 167
Fishes 167
Reptiles and Amphibia 167

Germany and Middle Europe.

General Treatises 167
Birds 167
Mammals 167
Fishes 167
Reptiles and Amphibia 167

PAGE

Great Britain.
General Treatises 167
Birds 168
Mammals 168
Fishes 168
Reptiles and Amphibia 168

Holland. See Belgium and Holland.

India and Ceylon.
General Treatises 168
Birds 169
Mammals 169
Fishes 169
Reptiles and Amphibia 169

Italy and Southern Europe.
General Treatises 169
Birds 169
Mammals 169
Fishes 169
Reptiles and Amphibia 169

Japan. See China and Japan.

Malaysia, Borneo and Philippines.
General Treatises 170
Birds 170
Mammals 170
Fishes 170
Reptiles and Amphibia 170

Oceania and the South Seas.
General Treatises 170
Birds 170
Mammals 170
Fishes 170

PAGE

Palestine. See Egypt, Syria and Palestine.

Philippines. See Malaysia, Borneo and the Philippines.

Portugal. See Spain and Portugal.

Russian Empire.
General Treatises 171
Birds 171
Mammals 171
Fishes 171
Reptiles and Amphibia 171

Scandinavia and Northern Europe.
General Treatises 170
Birds 171
Mammals 171
Fishes 171

South Seas. See Oceania and the South Seas.

Spain and Portugal.
General Treatises 172
Birds 172
Mammals 172
Fishes 172
Reptiles 172

Switzerland. See France and Switzerland.

Syria. See Egypt, Syria and Palestine.

United States. See America; United States and Canada.

West Indies. See America, Middle; and West Indies.

General Treatises on Animals of the World

This section includes works that deal with more than one branch of general vertebrate zoology. The student of a particular branch will, accordingly, consult not only the titles here listed but look up special works under their separate headings. To assist in the search most titles have (in parenthesis) an indication of any subject specially treated in the quoted work.

300 B.C. Aristotle.
50 A.D. Plinius Secundus.
140. Aelian.
220. Oppian.
602. Isidorus. (Dict.)
840. Mesuë.
1020. Theobald.
1170. Averroës.
1240. Albertus Magnus.
1260. Barthomaeus Anglicus.
1265. Thomas de Cantimbré.
1346. von Megenberg.
1385. El-Damiri.
1467. Rabanus Maurus.
1469. Plinius Secundus. (Ancient)
1473. Vincent de Beauvais.
1478. Megenberg, K. von.
1479. Anselm of Canterbury.
1485. von Cube, Johann.
(?) 1501. Avicenna.
1535. Oviedo. (Travels)
1547. Wotton, Ed.
1551. Gesner, Conrad.
1552. Wotton, Ed.
1555. Gesner, Conrad.
1557. Scaliger, J. C.
1565. Aelianus, C. (P. Gillius trans.)
1583. Gyllius, Petrus.
1584. Ferrarensis, J. A. (Ruminants)
1590. d'Acosta, José (Travels)
1595. Frey, H. H.
1598. Ruini, Carlo. (Horse)
1599. Aldrovandi, Ulisse.
1599. Imperato, Ferrante. (Fossil)
1601. von Hoevel, H.
1603. Agricola, J. G. (Deer)
1605. Belon, Pierre. (Comp. Zool.)
1605. Lécluse, C. de.
1612. Franz, Wolfgang. (Class.)
1618. Sennert, Daniel. (Class.)
1619. Waldung, Wolfgang. (Hare)
1625. Germano, Giovanni. (Comp. Zool.)
1633. Jonstonus, Johannes.
1635. Nieremberg, J. E. (Class.)
1641. Tulp, Nicholas. (Comp. Zool.)
1645. Severinus, M. A. (Comp. Zool.)
1648–58. Piso, Guil. (Cent. Am.)
1650. Severinus, M. A. (Comp. Zool.)
1653. Worm, Olaüs. (Comp. Zool.)
1655. Worm, O. (Museum)
1657. Plinius Secundus. (Dutch ed.)
1658. Bontius, Jacob.
1659. Thomasius, Jacob. (Mole)
1661. Sperling, Johann. (Class.)
1663. Bochart, Samuel. (Sacred)
1672. Bonfadini, Vita (Sport)
1672. Willis, Thos. (Comp. Psych.
1673. Blaes, Geraard. (Comp. Anat.)
1673. Le Grand, A.
1680. Platter, Félix. (Fossil)
1680. Rommel, Petrus. (Comp. Embryol.)
1681. Blasius, Gerard. (Anat.)
1685. Collins, Saml. (Comp. Zool.)
1687. Fabricius ab Aquapendente. (Comp. Zool.)
1693. Ray, J. (Mam. and Snakes)
1705. Rumphius, G. E.
1712–30. Redi, Francesco. (Comp. Zool.)
1713. Ray, J. (Birds and Fishes)
1718. Willughby, F. (Letters. Ray)
1720. Valentini, M. B. (Comp. Anat.)
1729. Caius, John. (Dogs)
1734–65. Seba, A.
1740–66. Linnaeus, Carl. (Class.)
1744. Aelianus, C. (Gr. and Latin)
1746. Linnaeus, Carl. (Class.)
1749–1804. Buffon, G. L. L. de.
1754. Klein, J. T.
1761–85. Houttuyn, M.
1762. Brisson, M. J. (Class.)
1762. Haller, Albrecht von. (Bib.)
1763–5. Alléon-Dulac, J. L.
(1765–80). Daubenton, E. L. —Boddaert, P. (Atlas) (Reprint, 1874)
1766. Hasselquist, F. (Voy.)
1766. Linnaeus, Carl. (Class.)
1766. Pallas, P. S.
1766–99. Buffon, G. L. L.
1766–1804. Vosmaer, A. (Separates)
1767. Byron, J. (Voy.)
1769–1800. Banks, Sir J. (Bib.)
1773. Hawkesworth, J. (Voy.)
1775. Forskål, Peter.
1776. Brown, Peter.
1776. Linnaeus, C.
1777. Cook, Capt. James. (Travel)
1777–84. H.M.S. 'Resolution.' (Voy.)
1778. Pallas, P. S.
1779–81. Bonnet, Chas.
1780. Haller, A. van. (Birds and Fishes)
1780–4. Borowski, G. H.
1782. Spallanzani, Lazaro.
1784. Mauduyt, L. (Encycl.)
1786. Hunter, John. (Comp. Zool.)
1786. Scopoli, G. A.
1786–9. Sparrman, A. (Mus.)
1787. Coxe, W. (Voy.)
1788. Forster, J. R.
1788–93. Gmelin, J. F. (Class.)
1790. Shaw, George. (Class.)
1790–1813. Shaw and Nodder. (Atlas)
1791. Valmont de Bomare. (Dict.)
1792. Osbaldiston, W. A. (Dict. Game)
1792. Shaw, G. (Mus.)

General Treatises on Animals of the World, *continued.*

1792, 1819. Vicq d'Azyr, Félix. (Comp. Anat.)
1794. Darwin, Erasmus. (Evol.)
1795–7. Bechstein, J. M. (Caged Animals)
1796. Miller, J. F. (Atlas)
1797. Bechstein, J. M. (Caged Animals)
1797. La Pérouse, J. F. de G. (Voy.)
1797. Römer, J. J.
1798. Cuvier, G. L. C. de.
1798–1800. Banks, Jos. (Cat.)
1800. Wiedemann, C. R. W. (Cuvier trans.)
1800–26. Shaw, Geo.
1801. Fischer, Gotthelf.
1802. de Lamarck, J. B. P. (Comp. Zool.)
1802–5. Treviranus, L. C.
1803. Camper, Peter. (Comp. Zool.)
1804. Hermann, J.
1805. Goldsmith, Oliver. (Pop.)
1805. Pulteney, R. (Linnaeus)
1806. Duméril, A. M. C. (Class.)
1806. Fischer de Waldheim, G. (Class.)
1806. Linnaeus, C. (Class.)
1806. Linnaeus, C. (Syst. Nat. Turton)
1807. Gravenhorst, J. L. C. (Class.)
1807. Temminck, C. J. (Birds and Monkeys)
1807. Wood, Wm. (Zoogeog.)
1809. de Lamarck, J. B. P. (Evol.)
1809–26. Shaw and Stevens.
1809–30. Descript. de l'Égypte. (Exped.)
1811. Illiger, J. C. W. (Class.)
1811. Pallas, P. S.
1811. Spix, J. B. (Class.)
1811–32. von Humboldt and Bonpland. (Voy.)
1813. Carus, T. L. (It. Poem)
1814–28. Home, Sir E. (Comp. Anat.)
1815. Naumann, J. F.
1815. Spix, J. B. (Crania)
1816–30. Dictionnaire des Sc. Nat.
1817. Cuvier, G. L. C. de.
1817. Goethe, J. W.
1818. Saint-Hilaire, E. G. (Comp. Anat.)
1819–21. Bojanus, L. H. (Comp. Embryol.)
1820–33. Swainson, W. (Atlas)
1821. Bowdich, T. E. (Class.)
1821. Ranzani, C. (Pop.)
1821–38. Pander, H. C. (Comp. Osteol.)
1822. Fleming, John. (Class.)
1823. Buckland, W. (Fossils)
1824. Dampier, W. (Voy.)
1824. Wood, Wm. (Cat.)
1824–6. Freycinet, Louis de. (Voy. 'Uranie'—'Physicienne')
1824–6. Quoy and Gaimard. (Voy.)
1825. Latreille, P. A. (Class.)
1826. Müller, Johannes. (Comp. Zool.)
1826. Parry, W. E. (Voy. 'Hecla'—'Fury')
1826. Portlock and Dixon. (Voy. 'George and Charlotte')
1826. Tiedemann, F. (Comp. Zool.)
1826–30. Duperry, L. I. (Voy. 'La Coquille.')
1827–35. Griffith, E. (Cuvier)
1827–37. Baer, K. E. (Embryol.)
1828. Lesson, R. P. (Mam. and Birds)
1828. Stark, John. (Atlas)
1828. Wilson, John. (Atlas)
1828–30. Erman, A. G. (Tr.)
1828–33. Buffon, G. L. L. (Lejeune ed.)
1828–38. Meckel, J. F. (Comp. Zool.)
1829. Bennett, E. T. (Menagerie)
1829. Kaup, J. J. (Class.)
1830–2. Lesson, R. P.
1830–5. Dumont d'Urville, J. S. C. (Voy. 'Astrolabe')
1830–45. Jardine, Sir W. (Pop.)
1831. Lesson, R. P. (Centurie)
1831–43. Voigt, F. S.
1832. Brown, Capt. Thos.
1832. Lear, E. (Parrots)
1833–43. Oken, Lorenz.
1834. Carus, Carl Gustav. (Comp. Zool.)
1834. Dewhurst, H. W. (Cetacea)
1834. Jourdan, A. J. L. (Dict.)
1834. McMurtrie, H.
1834. Rudolphi, C. A. (Phys. and Anat.)
1834. Swainson, W. (Nat. Hist.)
1834. Wagner, R. (Text-b.)
1834–40. Martin Saint-Ange, G. J., and Guérin, F. E.
1834–43. Naturalist's Library.
1834–63. Reichenbach, H. G. L. (Naturfreund)
1834–74. Buffon, G. L. L. de. (Suites)
1835. Swainson, W. (Class.)
1835–6. Quoy and Gaimard. (Voy.)
1835–7. Kaup, J. J. (Class.)
1835–42. Voigt, F. S. (Text-b.)
1835–46. Cuvier, G. L. C. F. D. (Comp. Zool.)
1835–59. Todd, R. B. (Cyclopedia)
1836–49. Cuvier, G. L. C. F. D.
1837. Bougainville, L. A. (Voy. 'Thetis'—'Esperance')
1837. Rudolphi, C. Asmund. (Comp. Zool.)
? 1838. Al-Jāhiz. (Arabic)
1838. Swainson, W. (Menageries)
1838–44. Darwin, Chas. (Voy. 'Beagle')
1839. Beechy, W. F. (Voy. 'Blossom')
1839. Laplace, C. P. T. (Voy. 'La Favorite')
1839. Lesson, R. P. (Voy. 'La Coquille')
1839. Vigors, N. A. (Arctic Voy.)
1839–43. Darwin, C. (Voy.)
1840. Brown, Capt. Thos.
1840. Swainson, W. (Taxid.)
1840–5. Owen, Richard. (Teeth)
1841–8. von Rusegger, Jos. (Travels)
1841–9. Fraser, L. (Atlas)
1841–52. Vaillant, A. N. (Voy. 'La Bonite')
1842. Blainville, H. M. D. de. (Anat.)
1842. Blainville, H. M. D. de. (Fossils)
1842. Serres, M. de. (Migration)
1842. Wilkes, Chas. (Synopsis. Exped.)
1842–54. Dumont d'Urville. (Voy. 'Astrolabe'—'Zélée')
1843. Jacquemont and J. Geoffroy St. Hilaire. (Voy.)
1843. Oken, L. (Atlas)
1843–4. Hinds, R. B. (Voy. 'Sulphur')
1844. Müller, Johannes. (Amphioxus)
1844 and 1856. Wilkes, Chas. (Voy.)
1844–5. Carpenter, W. B. (Treatise)
1844–75. Richardson and Gray. (Voy. 'Erebus'—'Terror')

General Treatises on Animals of the World, *continued.*

1845. Wilkes, Chas. (Exped.)
1845–60. Meyer, C. E. H. (Paleon.)
1846. Schmarda, K. L. (Dist.)
1846. Siebold and Stannius. (Comp. Zool.)
1846–55. Petit-Thouars, A. A. du. (Voy. 'Venus')
1847. Schwann, Th. (Histology)
1847–8. Pöppig, E. F. (Illust.)
1848. Naumann, J. F. (Taxid.)
1848–54. Agassiz, J. L. R. (Bib.)
1848–57. Kollar, Vincenz.
1850. Hakluyt, R. (Voy.)
1850–80. Chenu, J. C. (Encycl.)
1851. Vogt, C. C.
1851–3. Wood, J. G. (Pop. Nat. Hist.)
1852. Catlow, M. E. (Pop.)
1852. Leidy, Jos. (Comp. Zool.)
1852. Vogt, C. C. (Pop.)
1852. Wilkes, Chas. (Exped. 2nd ed.)
1852–4. 'Herald' (E. Forbes.) (Voy.)
1853. Schmarda, L. K. (Zoogeog.)
1854. Agassiz, Louis. (Class.)
1854. Forbes, Edward. (H.M.S. 'Herald')
1854. Gould, A. A. (Pop.)
1854. Siebold and Stannius. (Comp. Anat.)
1854–76. Pickering, Chas. (Dist.)
1855. Wolf, Joseph. (Atlas)
1856–8. Hoeven, J. van der. (Handbook)
1857. Sclater, P. L. (Dist.)
1859. Agassiz, Louis. (Class.)
1859. Bronn, H. G. (Class.)
1859. Darwin, Chas. (Evol.)
1859. Gegenbaur, Carl. (Comp. Anat.)
1860. Leunis, J. (Class.)
1860. Owen, Richard. (Paleon.)
1861. Carus, J. V. (Class.)
1861. Gosse, P. H.
1861. Jones, T. R.
1861. Rathke, M. H. (Embryol.)
1861. Wolf, Josef. (Atlas.)
1862. Gaudry, Jean A. (Fossils.)
1863. Huxley, Thos. (Comp. Biol.)
1863–4. Dana, J. W. (Class.)
1863–75. Carus and Gerstraecher. (Handbook.)
1864. Hawkins, B. W. (Comp. Osteol.)
1864. Huxley, T. H. (Comp. Anat.)
1864. Oppian. (It. Trans.)
1864–5. Wood, J. G. (Class.)
1864–72. Gegenbaur, Carl. (Comp. Anat.)
1865. Bates, H. W. (Voy. Amazons)
1865. Blumenbach, J. F. (Comp. Anat.)
1865. Tenney, S.
1865. Wüllerstorf-Urbair, B. von. (Voy. 'Novara')
1866. Haeckel, Ernst. (Evol.)
1868. Claus, C. F. W. (Text-b.)
1868. Haeckel, Ernst. (Class.)
1868. Haeckel, Ernst. (Evol.)
1869. Huxley, T. H. (Class.)
1869. Seeley, H. G. (Paleon.)
1869–82. Martin, P. L. (Zool. Gardens)
1870. van Beneden, E. (Embryol.)
1870. Figuier, Louis. (Pop.)
1870. Rolleston, Geo. (Class.)
1871. Huxley, Thos. (Comp. Zool.)
1871. Mivart, St. G. (Class.)
1873. Brenchley, J. L. (Voy. 'Curaçoa')
1873. Haughton, S. (Phys.)
1873. Hoefer, J. C. F. (History)
1874. His, Wilhelm. (Embryol.)
1874. Marey, É. J. (Aviation)
1874. Wolf and Elliot. (Atlas)
1875. Goodrich, S. G. (Pop.)
1875. Vogt, C. C. (Atlas)
1875. Zittel, K. A. von. (Paleon.)
1875–6. Berthelot, S. (Comp. Anat.)
1876. Buchner, L. (Psych.)
1876. Rauber, August. (Embryol.)
1876. Wallace, A. R. (Zoogeog.)
1876–93. Zittel, Karl A. von. (Paleon.)
1877–8. Schmarda, L. K. (Text-b.)
1878. Altum and Landois. (Text-b.)
1878. Macalister, A. (Text-b.)
1879. Balbiani, É. G. (Embryol.)
1879. Wilson, Andrew. (Essays)
1879–date. Friedländer, R. (Bib.)
1880. Wallace, A. R. (Island Life)
1880–1. Balfour, F. M. (Comp. Embryol.)
1880–4. Willughby Soc. Publications.
1880–95. Thomson, C. W. (Voy.)
1881. Homeyer, E. F. von. (Migration)
1881. Nordenskiöld, N. A. E. (Voy.)
1881. Thomson, C. Wyville. (Voy. 'Challenger')
1881. Tissandier, G. (Fossils)
1882. Kingsley, J. S. (Bibliog.)
1882–4. Scudder, S. H. (Class.)
1883. Hamerton, P. G.
1883. Nicols, Arthur. (Comp. Anat.)
1883. Phipson, Emma. (Shakespeare)
1883. Romanes, G. J. (Psych.)
1883. Selenka, E. (Embryol.)
1883. Wilson, Andrew. (Evol.)
1883–5. Science Lectures. (Pop.)
1883–6. Leunis, J. (Class.)
1884. Bartholomew, J. (Geog. Atlas)
1884. Cassell's Natural History. (Pop.)
1884. Hoernes, R. (Paleon.)
1884. Standard Natural History. (Pop.)
1884–date. Cat. Br. Museum. (Nat. Hist. All subjects)
1885. Stejneger and others. (Pop.)
1885–97. Bolton, H. C. (Cat.)
1886. Dawson, Sir Wm. (Handbook)
1886. Engelmann and Taschenberg. (Bibliog.)
1886. Guillemard, F. H. (Voy. 'Marchesa')
1886. Ridgway, R. (Color-index)
1886. Vienna K. Acad. Wissenschaft. (Polar Ex.)
1887. Healy, M. A. (Voy. 'Corwin')
1887. Heilprin, A. (Zoogeog.)
1887. Nicholson, H. A. (Paleon.)
1887. Nordenskiöld, N. A. E. von. (Voy. 'Vega')
1887. Pettigrew, J. B. (Locomotion. Flight)
1888. Rolleston, Geo. (Comp. Anat.)
1889. Neumayr, Melchior. (Paleon.)
1889. Nicholson and Lydekker. (Paleon.)
1889–date. Albert, Prince of Monaco. Explorations)
1890. Baker, S. W. (Game)
1890. Hertwig, Richard.
1890. Poulton, E. B. (Coloration)
1890–3. Brehm, A. E.

General Treatises on Animals of the World, *continued.*

1891. Lydekker, R. (Fossil)
1891. Woods, Henry. (Fossils)
1891–6. Lang, A. (Comp. Anat.)
1892. Hutchinson, H. N. (Pop.)
1892. Wundt, Wilhelm. (Psych.)
1892–7. Romanes, G. J. (Evol.)
1893. Wood, J. G.
1893–6. Lydekker, R. (Pop.)
1894. Bateson, Wm. (Evol.)
1894. Davie, O. (Taxid.)
1894. Willey, A. (Evol.)
1894–7. Sharpe, R. B. (Allen's Libr.)
1894–1900. Smit, J., and Sclater. (Antelopes)
1895. Roux, Wilhelm. (Evol.)
1895. Thomson, J. A.
1895. Williams, H. S. (Geol. Biol.)
1895–1909. Harmer, S. F.
1896. Cope, E. D. (Evol.)
1896. Cornish, C. J. (Psych.)
1896. von Graff, L.
1896. MacBride, E. W. (Morphology)
1896. Thomson, J. A. (Pop.)
1896–1902. Zittel, K. A. von. (Text-b. Paleon.)
1896–date. Schulze, F. E. (Treatise)
1897. Lydekker and others. (Nat. Hist.)
1897. Lydekker and Nicholson. (Paleon.)
1897. Reynolds, S. H. (Comp. Anat.)
1897. Wiedersheim, R. E. E. (Comp. Anat.)
1897–1902. Leuckart u. Chun. (Bib.)
1898. Beddard, F. E. (Elementary)
1898. Hertwig, W. A. O. (Comp. Embryol.)
1898. Roule, L. (Embryol.)
1898. Woodward and Smith. (Paleon.)
1898–1901. Gegenbaur, Carl. (Comp. Anat.)
1898–1909. Sedgwick, Adam. (Text-b.)
1899. Sclater, W. L. (Zoogeog.)
1899. Sherborn, C. D. (Class.)
1900. Cunningham, J. T. (Sex dimorphism)
1900. Groos, K. (Comp. Psych.)
1901. Lucas, F. A. (Paleon.)
1901. Lydekker, R. (Game)
1901. Schmeil, F. O. (Biol.)
1901. Shipley and MacBride. (Text-b.)
1901–2. Cornish, C. J. (Pop.)
1902. Lib. Zool. Soc. (Cat.)
1902. Sherborn, C. D. (Class.)
1902. Waterhouse, C. O. (Index)
1902–6. Perrier, J. O. E.
1902–10. Heider and Korschelt. (Comp. Embryol.)
1903. Lucas, F. A. (Paleon.)
1903. Steinmann, J. H. C. (Paleon.)
1903. von Zittel and Eastman. (Paleon.)
1903–4. Woburn Library of Natural History.
1904. Weber, Max. (Syst.)
1905. Salt, H. S.
1905–7. Goethe, J. W.—
1906. Andrews, C. W. (Fossils)
1907. Depéret, Chas. (Paleon.)
1907. Jordan, D. S. (Evol.)
1907. Linnaeus, C. (Life)
1907–13. Przibram, H. (Exp. Zool.)
1908. Fox, Wm. J. (Cat.)
1908. Nicoll, M. J. (Voyage)
1908–14. 'Scotia.' (Voy. Antarctic)
1909. Bateson, W. (Heredity)
1909. Seward, A. C. (Evol.)
1909. Taschenberg, E. O. W. (Venomous Animals)
1909. Thayer, G. H. (Coloration)
1909. Vinci, L. da. (Comp. Zool.)
1909–12. Stromer von Reichenbach. (Paleozool.)
1910. Br. Mus. (Nat. Hist.) (Guide. Fossils)
1910. Lydekker, R.
1910. Sokolowsky, A.
1910. Wallace, A. R. (Evol.)
1910. Wilser, L. (Ancient Man)
1912. Hertwig, Oscar. (Biol.)
1912. Knipe, H. R. (Paleon.)
1912. Lehmann, Alfred. (Psych.)
1912–17. Wood, Casey A. (Comp. Oph.)
1913. Pycraft, W. P. (Psych.)
1914. Cornish, C. J. (Pop.)
1916. Holmes, S. J. (Psych.)
1917. Cornish, C. J. (Pop.)
1917. Kingsley, John S. (Comp. Anat.)
1917. Przibram, H. (Exp. Zool.)
1917. Thomson, J. A.
1918. Loeb, Jacques. (Exp. Biol.)
1919. Bourne, G. C. (Comp. Anat.)
1919. Dürken, B. (Exp. Zool.)
1919. Morgan, T. H., and others. (Mendelian)
1920. Dendy, A. (Pop.)
1920. Harvey, E. N. (Psych.)
1920. Henderson, I. F., and W. D. (Dict.)
1921. Schmid, B.
1923–7. Marshall, W. A. L. (Atlas)
1924. Lomer and Mackay. (Cat.)
1925. Hirsch-Schweigger, E. (Dict.)
1925. Locy, W. A. (Biol.)
1925. Perrier, E. (Tr. de Zool.)
1925. Stempell, W.
1926. Ellenberger, W. (Comp. Anat.)
1926. Johnston, H. H. (Pop.)
1926. Osborn, H. (Econ.)
1926. Thomson, J. A.
1927. Haskins, C. H. (Med. Sc.)
1927. Ihle, J. E. W. (Anatomy)
1927. Shumway, W. (Embryol.)
1927. Un. List Serials. (Cat.)
1927. Weidenreich, F. (Comp. Anat.)
1927. Boulenger, E. G. (Pop.)
1928. De Beer, G. R. (Text-b.)
1928. Hiersemann, K. W. (Cat. of Incunabula)
1928. Uexküll, J. J. (Biol.)
1928–9. Daglish, E. F.
1929. Bibliotheca Osleriana. (Cat.)
1929. Chapman, Frank M. (Pan. Zone)
1929. Hornaday, W. T. (Taxid.)
1929. Jordan, H. (Vert. Phys.)
1929. London Zoological Society. (London Zoo)
1929. Mudge, I. G. (Cat.)
1929. Papez, J. W. (Comp. Neur.)
1929. U.S. Cat. of Books.
1930. Brambell, F. W. R. (Embryol.)
1930. Goodrich, E. S. (Anat. and Class.)
(1930). Scott, G. G. (Gl. Biol.)

Birds of the World—General Treatises

? 1370. Frederick II. (Falconry)
1544. Turner, W. (Pliny, Arist.)
1555. Belon, Pierre.
1573. Coiter, Volcher. (Anat.)
1603. Schwenckfeld, Caspar.
1676. Ray, J.
1676. Robert, N. (Atlas)
1676. Willughby, F. (Latin. Ray)
1695. Baerius, N.
1731–8. Albin, E.
1738–40. Albin, Eleazer.
1743–51. Edwards, George.
1745. Barrère, P.
1750. Klein, J. T. (Class.)
1752. Moehring, P. H. G. (Class.)
1760. Brisson, M. J.
1767. Salerne, F. (Synopsis)
1767–76. Manetti, X.
1773. Pennant, Thomas. (Class).
1779. Schäffer, J. C.
1775. Hayes, W.
1781–1802. Latham, John.
1784. Huber, Jean. (Flight)
1784. Jacquin, J. F.
1786. Pennant, T. (Buffon)
1786–9. Sparrman, A. (Museum)
1800. Daudin, F. M.
1801–5. Levaillant, F. (Parrots)
1801–6. Levaillant, F. (Paradise)
1802. Audebert and Vieillot. (Atlas)
1802. Vieillot and Audebert. (Oiseaux dorés)
1802–83. Montagu, Col. (Dict.)
1805. Desmarest, A. (Tangaras)
1805. Vieillot, L. J. P. (Song-birds)
1806. Levaillant, F. (Promerops)
1808. Temminck-Knip. (Pigeons)
1813–15. Temminck, C. J. (Pigeons)
1815. Temminck, C. J.
1816. Vieillot, L. J. P. (Class.)
1816, 1883. Vieillot, L. J. P. (Analyse)
1819. Latham, John. (Class.)
1820. Temminck, C. J. (Class.)
1820–39. Temminck and Laugier. (Atlas)
1825. Vieillot, L. J. P. (Atlas)
1825. Vieillot and Audebert. (Galerie des Oiseaux)
1827. Wagler, J. G. (Class.)
1827–43. Selby and Jardine. (Atlas)
1828. Lesson, R. P. (Manual)
1829. Lesson, R. P. (Hum. birds)
1831. Lesson, R. P. (Traité)
1831. Rennie, J. (Anat.)
1832. Lear, Edward. (Parrots)
1832–5. Kittlitz, F. H. von. (Atlas)
1833. Geoffroy Saint-Hilaire, I. (Class. Orig. Manus.)
1833–4. Jardine, W. (Hum. birds.)
1834. Gould, John. (Toucans)
1834. Jardine, W. (Game)
1834–41. Hahn, C. W. (Atlas)
1835. Baker, T. B. L. (Class.)
1835. Selby, P. J. (Pigeons)
1836. Wood, Neville. (Bib.)
1836–7. Swainson, W. (Class.)
1838. Eyton, T. C. (Anatidae)
1838. Swainson, W. (Fly-catchers)
1838–43. Temminck, C. J. (Pigeons)
1840. Gray, Geo. R. (Genera)
1840. Nitsche and Burmeister. (Eng. trans. Pterylg.)
1841. Belany, J. C. (Falconry)
1841–2. Gray, G. R. (Class.)
1843. Jardine, W. (Sun-birds)
1844. Rennie, James. (Anat.)
1844–9. Gray, Geo. R. (Class.)
1844–76. Gray, Geo. R. ('Erebus' and 'Terror')
1845–9. Des Murs, M. A. P. O. (Atlas)
1845–9. Du Bus, B. L. (Atlas)
1845–56. Thienemann, F. A. L. (Oöl.)
1845–79. Reichenbach-Meyer.
1848. Blanc, Alphonse.
1849. Des Murs, M. A. P. O. (Atlas)
1849. Friderich, C. G. (Cage-birds)
1849. Kaup, J. J. (Class.)
1849–61. Gould, John. (Hum. birds)
1850–65. Bonaparte-Finsch. (Class.)
1852. Gray, G. R. (Oöl.)
1852. Martin, W. C. L. (Hum. birds)
1853. Heermann, A. L. (Oöl.)
1853. Schinz, H. R. (Atlas)
1853. Sclater, P. L. (Galbulidae)
1854. Stanley, E.
1855. Gray, Geo. R. (Class.)
1857. Souancé, C. de. (Parrots)
1857. Steenstrup, J. J. S. (Vultures)
1858. Yarrell, W.
1860. Des Murs, M. A. P. O. (Oöl.)
1863. Sundevall, C. J. (Aristotle)
1864–5. Elliot, D. G. (Grouse)
1864, 1902. Wolley, J. (Oöl.)
1864–1907. Newton, Alfred. (Oöl.)
1865. Bonaparte, Prince Charles. (Class.)
1866. Montagu, Geo. (Dict.)
1866. Sundevall, C. J. (Woodpeckers)
1867. Blasius, R. (Oöl.)
1867. Huxley, T. H. (Class.)
1867. Tegetmeier, W. B. (Poultry)
1868. Tegetmeier, W. B. (Pigeons)
1868–71. Sharpe, R. B. (Kingfishers)
1869. Figuier, G. L.
1869. Seidlitz, G. C. M. (Oöl.)
1869–71. Gray, Geo. R. (Class.)
1869–73. Cassell's Birds.
1872–3. Sundevall, C. J. (Class.)
1872–7. Giebel, C. G. A. (Bib.)
1873. Brodrick, Wm. (Falconry)
1874. Bourcier, J. (Hummers)
1874. Tegetmeier, W. B. (Reprint Atlas)
1874–6. Wright, L. (Pigeons)
1874–7. Mulsant and Verraux. (Trochilidae)
1874–98. Br. Mus. Nat. Hist. (Cat.)
1876. Palmén, J. A. (Migration)
1876–80. Shelley, G. E. (Sun-birds)
1877. Russ, K. F. O. (Carrier Pigeon)
1877–80. Blakston, W. A. (Cage-birds)
1878–83. Reichenow, A. (Parrots)
1879. Benecke and Kupffer. (Embryol.)
1879. Owen, Richard. (Extinct.)
1879. Selys-Longchamps, M. E. (Class.)

Birds of the World—General Treatises, *continued.*
1879–82. Sclater, P. L. (Jacamars)
1880–7. Sharpe, R. B. (Hum. birds)
1881. Blyth, E. (Cranes)
1881. Eudes-Deslongchamps, E. (Trochilidae)
1881. Seebohm, H. (Passeriform)
1881. Tegetmeier, W. B. (Cranes)
1881. Tegetmeier, W. B. (Pheasants)
1883. Gadow, H. F. (Passeriform)
1883. Gould, John. (Hum. birds)
1883–9. Sharpe, R. B.
1884. Greene, W. T. (Parrots)
1884. Russ, K. F. O. (Parrots)
1884–6. Dresser, C. (Meropidae)
1885. Palacký, J. (Zoogeog.)
1885–94. Sharpe and Wyatt. (Swallows)
1886. Ridgway, Robt. (Color St.)
1887. Green, J. F. (Birds of the Ocean)
1887. Seebohm, H. (Charadrüdae)
1888. Fürbringer, Max. (Anat. and Class.)
1888–9. Bartlett, E. (Fringillidae)
1888–9. Lydekker, R. (Fossil)
1889. Waterhouse, F. H. (Index)
1890. Shufeldt, R. W. (Anat. Raven)
1890. Wright, Lewis. (Poultry)
1891. Bendire, C. E. (Oöl.)
1891. Harting, J. E. (Falconry)
1891. Leverkühn, P. (Oöl.)
1892. Sharpe, R. B. (Class.)
1893. Wickmann, H. (Oöl.)
1893–6. Newton, Alfred. (Dict.)
1894. Witherby, H. F. (Ducks)
1895. Headley, F. W. (Comp. Anat.)
1895. Marshall, W. A. L. (Anat.)
1896. Mivart, St. G. (Loriidae)
1896. Newton, A. (Dict.)
1897. Blaauw, F. E. (Cranes)
1898. Beddard, F. E. (Anat. and Class.)
1898. Chapman, Frank. (Pop.)
1898. Sharpe, Bowdler. (Pop.)
1898–1902. Seebohm, H. (Thrushes)
1898–1902. Sharpe, R. B. (Turdidae)
1899. Evans, A. H.
1899. Nehrkorn, A. (Oöl.)
1900. Evans, A. H. (Cam. Nat. Hist.)
1900. Haecker, V. (Bird-song)
1901. Eckstrom, Fannie. (Pop.)
1901. Lydekker, R. (Dist.)
1901–12. Br. Mus. (Nat. Hist.) (Oöl.)
1904. Tegetmeier, W. B. (Pheasants)
1905. Alphéraky, S. (Geese)
1905. Wytsman, P. A. G. (Class. genera)
1907. Butler, A. G. (Sex Cage-birds)
1907. Rothschild, L. W. (Extinct)
1907–10. Godman, F. D. (Petrels)
1909. Knowlton and Ridgway.
1910. Beetham, Bentley. (Herons, &c.)
1910. Pycraft, W. P. (History)
1912. Clarke, W. E. (Migration)
1917. Wood, Casey A. (Comp. Oph.)
1918–22. Beebe, Wm. (Pheasants)
1921. Knight, C. W. R.
1921. Lambrecht, K. (Fossils)
1922–6. Phillips, J. C. (Ducks)
1923. Thomson, J. A. (Biol.)
1924–date. Swann, H. K., and A. Wetmore. (Accipitres)
1925. Allen, G. M. (Psych.)
1925–8. Encyclopédie Ornithologique.
1926. Figuier, Louis. (It. trans.)
1926. Heilmann, G. (Evol.)
1926. Thomson, J. A. (Migration)
1926. Wetmore, Alex. (Migration)
1927. Wetmore, Alex. (Migration)
1928. Hendy, E. W.
1929. Arrigoni degli Oddi, Ettore.
1929. Tavistock, Lord. (Parrots)
1930. Wood, Casey A. (Psittacosis)

Mammals of the World

General Treatises

1560. Constantinus, A.
1584. Aemilianus, J.
1607. Topsell, Edward.
1777. Erxleben, J. C. P. (Class.)
1777. von Zimmermann, E. A. W. (Dist.)
1778–9. Pallas, P. S.
1793. Pennant, T. (Synopsis)
1800. Audebert, J. B. (Monkeys.)
1809. Lawrence, J. (Horse)
1812. Cuvier, G. L. C. F. D. (Fossils)
1815–55. Schreber, J. C. D. von. (Atlas)
1820–2. Desmarest, A. G.
1823. Scoresby, W. (Whales)
1824. Cuvier and St. Hilaire.
1824–9. Schinz, H. R. (Class.)
1827. Lesson, R. P. (Manual)
1827–34. Lichtenstein, M. H. C. (Atlas)
1827–41. Temminck, C. J.
1828. Geoffroy Saint-Hilaire, E.
1829. Huet, J. B. (Mus.)
1829. Khayl-nāma. (Horse, Persian)
1833–40. Royle, J. F. (Himalayas)
1835. Treviranus, R. C. (Anat.)
1836. Cuvier, F. G.
1839–64. de Blainville, H. M. D. (Osteogr.)
1845. Owen, Richard. (Fossil)
1845. Wagner, J. A.
1845–6. Jardine, W. (Deer)
1845–6. Jardine, W. (Felidae)
1845–6. Jardine, W. (Monkeys)
1845–6. Jardine, W. (Ungulates)
1846–8. Waterhouse, G. R. (Nat. Hist.)
1848. Gosse, P. H.
1850. Latham, R. G. (Ethnology)
1850. White, A. (Pop.)
1854. Agassiz, L.
1854–5. Gervais, F. L. P.
1862. Gerrard, E. (Fossils)
1865. Owen, R. (Gorilla)
1866. Gray, J. E. (Seals)
1866. Murray, Andrew. (Zoogeog.)
1868. Gray, J. E. (Dolphins)
1868 and 1871. Gray, J. E. (Whales)
1869. Gray, J. E. (Carnivora)
1870. Gray, J. E. (Monkeys)
1872. Gray, J. E. (Ruminants)
1873. Kowalevsky, V. O. (Fossils)
1874. Elliot and Wolf. (Pop.)
1874. Giebel, C. G. A.
1874. Gray, J. E. (Sea-lions)
1876. Buchner, L. (Psych.)
1881–4. Retzius, M. G. (Ear)

Mammals of the World—General Treatises, *continued.*

1883. Elliot, D. G. (Felidae)
1883. Vogt and Specht. (Pop.)
1883–92. Selenka, E. (Embryol.)
1885. Guenther, A. (Br. Mus.)
1885. Hartmann, C. E. W. R. (Apes)
1885. Parker, W. K. (Evol.)
1885–7. Lydekker, R. (Sheep)
1888–90. Lydekker, R. (Fossil)
1890. Mivart, St. G. (Canidæ)
1891. Flower and Lydekker.
1894. Forbes, H. O. (Primates)
1894. Guenther, A. (Br. Mus.)
1894. Willey, A. (Amphioxus)
1894–1900. Sclater and Thomas. (Antelopes)
1895. Lydekker, R. (Carnivora)
1896. Lydekker, R. (Geog.)
1898. Lydekker, R. (Deer)
1898–1905. Trouessart, É. L. (Cat.)
1899. Sclater, P. L., and W. L. (Zoogeog.)
1900. Andrews, C. W. (Br. Mus.)
1900. Beddard, F. E. (Whales)
1901. Reighard and Jennings. (Felidae Anat.)
1902. Beddard, F. E.
1902. Roosevelt, T. (Deer)
1904. Elliot, D. G. (Midd. Am.)
1904. Palmer, Theodore. (Cat.)
1904. Weber, M. C. W. (Comp. Anat.)
1905. Lankester, E. R. (Extinct Animals)
1905. Ridgeway, W. (Horses)
1906. Ingersoll, E.
1907. Kirby, W. F.
1907. Lydekker, R. (Ungulata)
1907. Miller, G. S. (Bats)
1910. Gregory, W. K. (Syst.)
1910. Osborn, H. F. (Paleon.)
1910. True, F. W. (Whales)
1912. Anderson, K. (Bats)
1913. Lydekker, R. (Ungulates)
1913–16. Br. Mus. (Nat.Hist.) (R. Lydekker)
1916. Forbush, E. H. (Cat.)
1917. Cornish, C. J. (Pop.)
1923. Cox, H. (Dogs)
1927. Ash, E. C. (Dogs)
1928. Holmes, S. J. (Frog)
1929. Rhys, E. (Horses)
1929. Yerkes, R. M. (Apes)
1930. Mather, K. F. (Paleon.)
1930. Demaison, A. (Pop.)

Fishes of the World

General Treatises

1508. Oppianus. (Poem)
1534. Oppianus. (Poem)
1544. Rondelet, Guillaume.
1554–5. Rondeletius, G.
1554–8. Salviani, Hippolyte.
1555. Rondelet, Guillaume.
1558. Bossuet, F.
1620. Belon, Pierre.
1667. Voigt, Gottfried.
1685. Willughby, Francis.
1686. Ray, J.
1705. Rudbeckius, O. (Biblical)
1722. Oppian. (Ancient)
1738. Artedi, Peter.
1740–9. Klein, J. T.
1754. Gronovius, L. T.
1760. Schaeffer, J. C.
1770. Goüan, A.
1782. Broussonet, P. M. A.
1785–95. Bloch, Marcus.
1785. Monro, Alex. 2nd. (Comp. Anat.)
1802–5. Sonnini, C. N. S.
1817. Walcot, John. (Amph. also)
1828–49. Cuvier and Valenciennes.
1833–44. Agassiz, Louis. (Fossil)
1844. Oersted, A. S. (Geog.)
1846. Owen, Richard. (Comp. Anat.)
1847. Valenciennes, A.
1851. Gosse, P. H.
1854. Gronovius, L. T. (Cat.)
1858. Jones, T. R. (Pop.)
1859–70. Günther, A. C. L. G. (Cat. Br. Mus.)
1860. Karr, A. (Dict.)
1868. Mangin, A.
1874. Bosgoed, D. M. (Bib.)
1877. Holdsworth, E. W. H.
1877. Räuber, H.
1877. Young, A. (Salmon)
1880. Günther, A. C. L. G.
1883. Westwood and Satchell.
1884. Sørensen, W. E. (Comp. Anat.)
1885. La Blanchère, H. de. (Dict.)
1888. Vaillant, L. L.
1889–1900. Woodward, A. S. (Fossil Fishes)
1890. Cunningham, J. T. (Sole)
1891. Palacký, J. (Zoogeog.)
1891. Sauvage, H. E.
1894. Hickson, S. J. (Deep Sea)
1895. Dean, Bashford.
1895. Goode and Bean.
1895–date. Boulenger, G. A. (Cat. Br. Mus.)
1896. Goode and Bean. (Deep Sea)
1901. Pycraft, W. P. (Pop.)
1904. Bridge, T. W.
1907. Jordan, David S. (Pop.)
1912. Gemmill, J. F.
1912. Murray and Hjort. (Deep Sea)
1915. Goode and Bean.
1916–17. Dean, Bashford. (Bib.)
1917–20. Jordan, D. S. (Class.)
1920. Jenkins, J. T. (Sea Fisheries)
1922. Naef, A. (Fossil)
1928. Daniel, J. F.

Reptiles and Amphibia of the World

General Treatises

1607. Topsell, Edward.
1742. Owen, Chas. (Serpents)
1758. Haller, Albrecht von. (Frogs)
1792. Schoepf, J. D. (Turtles)
1827. Heyden, C. H. von.
1828. Lamouroux, Madame S.
1830. Wagler, J. G. (Amphibia)
1834–54. Duméril and Bibron.

Reptiles and Amphibia of the World—General Treatises, *continued.*
1835. Kielsen, F. C. (Amphibia)
1838–9. Swainson, W. (Fishes and Reptiles)
1849. Gray, J. E. (Cat.)
1850. Gosse, P. H.
1856. Stannius, H. (Anat.)
1865. Mayer, A. F. J. C. (Eggs)
1866. Bronn, H. G.
1869. Figuier, G. L.
1870. Duméril and Bocourt.
1872. Gray, J. E. (Turtles)
1872. Sowerby and Lear. (Testudinata)
1874. Mivart, St. G. J. (Frog)
1877. Guenther, A. C. (Tortoise)
1882. Hopley, C. C. (Pop.)
1886. Cope, E. D. (Snakes)
1888. Lydekker, R. (Br. Mus.)
1889. Bottard, A.
1889–96. Boulenger, G. A. (Br. Mus. Cat.)
1890. Hoffmann, C. K.
1890. Lydekker, R. (Cat.)
1893. Cooke, M. C.
1896. Tornier, G.
1900. Cope, E. D.
1901. Gadow, H. (Camb. Nat. Hist.)
1901. Seeley, H. G. (Extinct Reptiles)
1906. Dickerson, M. C. (Frogs)
1910. Ditmars, R. L. (Pop.)
1910. Vaillant, L. L.
1911. Griffini, Achille. (Pop.)
1912. Lydekker and others. (Amphibia)
1913. Br. Mus. (Nat. Hist.) (R. Lydekker)
1914. Ditmars, R. L. (Pop.)
1914. Fairchild, D. G. (Pop.)
1914. Williston, S. W. (Pop.)
1915. Boulenger, G. A.
1915. Reese, A. M. (Alligators)
1919. Abel, O. (Evol.)
1921. Arldt, T. (Fossil)
1925. Noble, G. K. (Frogs)
1925. Williston, S. W. (Osteol.)
1926. Smith, M. (Sea Snakes)
1927. Ditmars, R. L. (Last ed.)
1928. Marshall, A. M. (Frog)
1928. Shumway, W. (Frog)
1930. Fitzsimons, F. W. (Pythons)

Africa—The Whole Continent

General Treatises

1795. Levaillant, F. (Tr.)
1798. Levaillant, F.
1818. Tuckey and Cranch. (Exped.)
1826. Clapperton and Denham. (Tr.)
1870. von der Decken, C. C. (Tr.)
1883–7. Rochbrune, A. T. de. (Seneg.)
1888. Drummond, H. (Tr.)
1923. Johnston, H. H. (Autobiog.)
1923. William of Sweden, Prince.
1924. Statham, J. C. B.

Birds

(1796). Levaillant, F.
1802. Levaillant, F.
1858. Müller, J. W. von.
1867. Barboza du Bocage, J. V.
1872. Andersson, C. J.
1896–1912. Shelley, G. E.
1900–5. Reichenow, A.
1930. Sclater, W. L. (Bib.)

Mammals

1899. Bryden, H. A. (Game)
1899. Engell, M. C. (Elephants)
1903. Baum, H. (Exped.)
1909. Bryden, H. A.

Fishes

1909. Boulenger, G. A. (Freshwater)

America—Both Continents

General Treatises

1707–25. Sloane, Hans. (Voy.)
1751. Bartram, J. (Tr.)
1826–8. Godman, J. D. (Semi-pop.)
1835–6. Poeppig, E. F.
1859–60. Suckley, G., and Cooper, J. (Pacific Coast)
1882. Forster, J. R. (Cat.)
1895–1909. Shipley, A. E.
1900. Shufeldt, R. W.
1902. Stone and Cram.
1920. Shipley, A. E. (Zool.)
1924. Meisel, Max. (Bib.)

Birds

1801–2. Levaillant, F. (Birds)
1846. Selys-Longchamps, M. E.
1861–2. Sclater, P. L. (Cat.)
1917. Pearson, T. G.
1918–date. Cory and Hellmayr.

Fishes

1875. Scott, G. C.
1888. Goode, G. B.

Asia—Whole Continent

General Treatises

1240. Kasvini. (Persia)
1756. Russell, Alex. (Aleppo)
1856–69. Tchihatcheff, P. de. (Asia Minor)
1867–76. Martens, E. von. (E. Asia)
1873. 'Ilaju'l-baha'im. (Hind. lith.)
1876. Blanford, W. T. (Persia)
1876. Goldsmid, F. J. (Persia)
1891. Hart, H. C. (Palestine)
1898. Hedin, S.
1901. Zichy, J. (Exped.)
1901–date. Weber, M. C. W. (Siboga Voy.)
1902–3. Gardiner, John S. (Maldives)
1905–7. Mission Indo-Chine. (French Govt.)
1923. Survey of the Fauna of Iraq.

Birds

1828. Ehrenberg, C. G. (Africa and Asia)
1831. Gould, John. (Himalayas)
1832. Gould, John. (Himalayas)

Asia—Whole Continent—Birds, *continued.*

1850–83. Gould, John, and Sharpe, R. B.
1870–1. Marshall, Bros. (Barbets)
1888. Gould and Sharpe.
1888–94. Menzbir, M. A. (Turkestan)
1890. Timur-Mirza-Qajar. (Persian Falconry)
1929. Wilkinson, E. S. (Shanghai)

Mammals

1829. Husami. (Persian poem. MS.)
1829. Khayl-nama. (Persian MS.)

Europe, Whole Continent

General Treatises

1797–1857. Sturm, Jacob. (Atlas)
1840. Schinz, H. R.
1865. Möbius, K. A. (Dist.)
1899. Scharff, R. F.
1900. Nansen, F. (North Pole)
1907. Scharff, R. F. (Zoogeog.)
1928. Scharff, R. F. (Dist.)

Birds

1759. Nobleville, A. de. (Nightingale)
1830. Schinz, H. R. (Nests and Eggs)
1832–7. Gould, John.
1834. Gloger, C. W. L.
1839–51. Susemihl, J. C. (Atlas)
1842. Werner, J. C. (Atlas)
1844. Schlegel, Hermann.
1848. Lefèvre, A. (Oöl.)
1849. Degland, C. D.
1849. Des Murs, M.A. (Atlas)
1858–63. Bree, C. R.
1861–4. Dubois, Ch. F.
1867. Gerbe and Degland.
1868. Norguet, A. (Races)
1868–72. Dubois, A., and C. F. (Oöl.)
1870–1. Fritsch, Anton.
1871. Dubois, A. (Zoogeog.)
1871–9. Dresser and Sharpe.
1871–96. Dresser, H. E. (Supplement)
1872. Rey, E. (Zoogeog.)
1875–6. Bree, C. R.
1876. Hamonville, J. C. L. D' (Cat.)
1884–91. Olphe-Gaillard, Léon. (W. Eur.)
1890. Backhouse, J.
1890. Petersen, S. (Song-birds)
1895. Gätka-Rosenstock. (Migration)
1902. Arrigoni degli Oddi, E.
1903–14. Hartert, Ernst.
1905. Herman, Otto. (Migration)
1905–10. Dresser, H. E. (Oöl.)
1906–9. Jourdain, F. C. R. (Oöl.)
1907. Herman, Otto. (Prot. Birds)
1912. Floericke, K. (Pop.)
1912. Trouessart, E. L. (Cat.)
1914–15. Solomirsky, D. (Atlas)

Mammals

1840. Schinz, H. R.
1859. Clermont, T. F.
1889. van Beneden, P. J. (Whales)
1896. Hamilton, E. (Wild Cat)
1912. Br. Mus. (Nat. Hist.) (Miller, G. S.) (W. Eur.)

Fishes

1624. von Schonfeld, Stephan.
1842. Vogt, C. C. (Salmon)
1862. Widegren, H. (Salmon)
1886. Seeley, H. G. (Freshwater)
1909. Challenger Soc. (N. Atlantic)

Reptiles and Amphibia

1758. Roesel von Rosenhof. (Amphibia)
1859. Clermont, T. F.
1875. Schreiber, E.
1896. Fraas, E. (Fossil)
1897–8. Boulenger, G. A. (Batrachia)

North and Middle Africa

General Treatises

1661. Flacourt, E. de. (Madagas.)
1704. Bosmar, Guillaume. (Guinea)
1735. Alpinus, Prosper. (Egypt)
1803. Bory de Saint-Vincent, J. B. (Canary Islds.)
1812. Milbert, J. G. (Canary Islds.)
1818. Tuckey, Jas. K. (Congo)
1823. Thunberg, C. P. (Guinea)
1826. Denham and Clapperton. (Tr.)
1826–8. Rüppell, W. P. E. S. (N. Africa.)
1831. Lowe, R. T. (Madeira)
1835–6. Desjardins, J. F. (Madagas.)
1835–44. Webb and Berthelot. (Canary Islds.)
1836–8. Wagner, M. F. (N. Africa.)
1841. Wagner, M. F.
1845–51. Lefèbvre, C. T. (Abyssinia)
1846–60. Levaillant, Jean. (N. Africa)
1850–70. Fornasini and Bianconi. (Mozamb.)
1852–82. Peters, W. C. H. (Mozamb.)
1859–61. Peters and von der Decken. (E. Africa)
1867–70. Barboza du Bocage, J. V. (Portug. Africa)
1868. Pollen and van Dam. (Madagas.)
1870. Blanford, W. T. (Abyssinia)
1872. Andersson, C. J. (Damaral.)
1875. Drummond, W. H. (S.E. Africa)
1875. Mellis, J. C. (St. Helena)
1875. Monteiro, J. J. (Congo)
1875–84. Milne-Edwards, A. *et al.* (Madagas.)
1875–1900. Grandidier, A. (Madagas.)
1881. Oates, F. (Cent. Africa)
1882. Révoil, G. (Somaliland)
1888. Böhm, R. (E. Africa.)
1888. James, F. L. (Somaliland)
1891–1901. Stuhlmann, F. L. (Tr.)
1893. Selous, F. C. (Tr., S.E. Africa)
1893–1910. Deutsch-Ost-Afrika.
1898. Annales, Musée du Congo. (Belgium)
1898–1907. Anderson, John. (Egypt)
1900. Peel, C. V. A. (Somaliland)
1901. Moore, J. E. (Cent. Africa)

North and Middle Africa—General Treatises, *continued.*

1902. Blanchard, R. A. E. (Madagas.)
1905. Schillings, C. G. (E. Africa)
1906–? Voeltzkow, A. (Exped.)
1910. Sjöstedt, B. Y. (E. Africa)
1910–date. Adolf of Mecklenburg. (Exped. Cent. Africa)
1913. Hartert, E. J. O. (Sahara)
1915. Sibree, J. (Madagas.)
1925. Carpenter, G. D. H. (E. Africa)
? 1929. Akeley, Carl E. (Pop.)

Birds

1802. Bechstein, J. M.
1845. Rüppell, W. P. E. S. (Abyssinia)
1857. Hartlaub, C. J. G. (W. Africa)
1861. Hartlaub, C. J. G. (Madagas.)
1864. Antinori, O.
1869–75. Heuglin, M. T. von. (N.E. Africa)
1870. Finsch and Hartlaub. (E. Africa)
1875. Bouvier, A. (E. Africa, Cat.)
1875. Heughlin, M. T. von. (N.E. Africa)
1885. Büttikofer, J. (Liberia)
1901. Harris, H. E. (Canary Islds.)
1905. Oberholser, H. C. (E. Africa)
1905. Whitaker, J. I. S. (Tunisia)
1909. Whymper, C. (Egypt)
1930. Bannerman, D. A. (W. Africa)
1930. Bates, G. L. (W. Africa)

Mammals

1203. Abdallatif. (Nile)
1835–40. Rüppell, W. P. E. S. (Abyssinia)
1847–51. Prévost, F. (N. Africa)
1848. Guérin-Méneville, F. E. (Abyssinia)
1875–90. Edwards and Grandidier. (Madagas.)
1910. Drake-Brockman, R. E. (Somaliland)
1917. Lönnberg, E. (Cent. Africa)
1918. Hollister, N. (E. Africa)

Fishes

1843–60. Lowe, R. T. (Madeira)
1850–60. Guichenot, A. (N. Africa)
1866. Playfair, R. L. (Zanzibar)
1869. Petherick, J., and B. H. (Cent. Africa)
1896. Pfeffer, G. J. (E. Africa)
1907. Chevalier, Auguste. (Cent. Africa)
1912–date. Alluaud and Jeannel. (E. Africa)
1918. Hubbs, C. L. (E. Africa)

Reptiles and Amphibia

1827. Heyden, C. H. G. von. (Atlas)
1851. Guichenot, A. (N. Africa)
1897. Sjöstedt, B. Y. (Kamarun)

South Africa

General Treatises

1803. Bory de Vincent, J. B. (African Islds.)
1811–12 Lichtenstein, M. H. C. (Cape of Good Hope)
1812. Milbert, J. G.
1834–6. Smith, Andrew.
1838–49. Smith, Andrew.
1884. Smith and Sharpe.
1892. Distant, W. L. (Tr.)
1900–6. Stark and Sclater.
1901–7. Natal.
1905. Flint, W.
1908. Pretoria Annals.
1908–13. Schultze, L. S. (Cent. S. Africa)
1928. Lotsy, J. P. (Evol.)
1929. Hamilton, J. S.

Birds

1848. Strickland and Melville. (Mauritius Dodo)
1867. Layard, E. L.
1875–84. Layard, E. L.
1882. Holub and von Pelzeln.
1884. Layard, E. L. (S. Africa)
1900. Stark and Sclater.
1904. Reichenow, A.

Mammals

1840. Harris, W. C. (Game)
1900–1. Sclater, W. L.
1919–20. Fitzsimons, F. W.
1920. Haagner, A. K.

Fishes

1868. Fritsch, G. T.
1927. Barnard, A. K. (Cat.)

Reptiles and Amphibia

1876. Owen, R. (Fossils)
1912. Fitzsimons, F. W.

Middle America and West Indies

General Treatises

1628–51. Hernandez, Francisco. (Cent. Am.)
1658. de Rochefort, C. (W. Indies)
1705–25. Sloane, Hans. (W. Indies)
1722. Labat, J. B. (Voy.)
1750. Catesby, M.
1750. Hughes, G. (Barbados)
1809. Descourtilz, M. E. (Tr.)
1810. Ledru, A. P., and Sonnini. (Virgin Islds.)
1823. Thunberg, Carl P. (Mid. Am.)
1825. Harlan, R. (U.S.A.)
1840–50. de la Sagra, Ramon. (Fr. trans. Cuba)
1851–8. Poey, Felipe. (Cuba)
1859. Jones, J. M. (Bermuda)
1868–1909. Mission Scientifique au Mexique et dans l'Amérique.
1872–93. Gundlach, J. (Cuba)
1879–1915. Godman and Salvin. (Cent. Am.)
1880. Ober, F. A. (W. Indies)
1887. Bovallius, Carl. (Mid. Am.)
1888. Belt, T. (Nicaragua)
1902. Verrill, A. E. (Bermuda)
1927–date. Porto Rico and Virgin Islands. (Survey. W. Indies)

Middle America and West Indies, *continued.*

Birds

1839–61. Sagra, R. de la (Cuba)
1841. Swainson, W. (Cent. Am.)
1847. Gosse, P. H. (Jamaica)
1849. Gosse, P. H. (Atlas. Jamaica)
1854. Bonaparte, Prince. (Cal. and Nicaragua)
1858. Saussure, H. L. F. de. (Mexico)
1859. Baird, S. F. (Mexico)
1859. Bryant, H. (Bahamas)
1859. Wedderburn, J. W. (Bermuda)
1862. Sallé and Parzudaki. (Mexico)
1864. Sclater and Salvin. (Panama)
1866. Léotaud, A. (Trinidad)
1880. Cory, Charles B. (Bahamas)
1880. Sclater, W. L. (Cent. Am.)
1885. Cory, Charles B. (W. Indies)
1887. Stahl, A. (Porto Rico)
1889. Cory, Chas. B. (W. Indies)
1892. Cory, C. B. (W. Indies)
1902. Lembeye, J. (Cuba)
1928. Sturgis, B. B. (Panama)

Mammals

1877. Gundlach, J. (Cuba)
1904. Elliot, D. G. (Mid. Am.)

Fishes

1859. Girard, C. F. (Mexico)
1904. Meek, S. E. (Mexico)

Reptiles and Amphibia

1870. Bocourt, F. (Mexico)
1881. Gundlach, J. (Cuba)
1882. Brocchi, P. (Batr.)
1884. Garman, S. (Bermuda)
1887. Cope, E. D.
1904. Stejneger, L. (Porto Rico)

U.S.A. and Canada

General Treatises

1638–71. Josselyn, Jno. (N. Am. Tr.)
1675. Martens, Friedrich. (Arctic)
1678. Josselyn, John. (New Eng.)
1731–48. Catesby, Mark. (U.S.A.)
1751. Bartram, John B. (U.S.A.)
1771. Forster, John.
1784–5. Pennant, Thos.
1791. Bartram, Wm. (U.S.A.)
1792. Belknap, J. (N.H.)
1792. Pennant, T. (N. Am.)
1793. Hontan, Baron de la. (Canada)
1793. Imlay, G. (U.S.A.)
1794. Williams, Saml. (Vt.)
1795. Hearne, Saml. (Hud. Bay)
1799. Barton, B. S. (U.S.A.)
1814. Lewis and Clark. (N. West.)
1819. Leach and Sabine. (Arctic Ex.)
1819. Ross, Sir John. (Arctic Voy.)
1823. Say, Thos. (Exped.)
1825. Keating, W. H. (Canada)
1828. Parry, W. E. (N. Pol. Exped.)
1829–37. Richardson, John. (Canada)
1829–37. Richardson and Swainson. (N. Am.)
1834–41. Wied-Neuwied, Max. (N. Am.)
1835. Hitchcock, Edward. (U.S.A.)
1835. Jefferson, Thos. (U.S.A.)
1835. Ross, J. C. (Arctic Voy.)
1836. Godman, J. D.
1839. Townsend, John K. (U.S.A.)
1839. Zoolog. Survey. (Mass.)
1842. Thompson, Zadock. (Vt.)
1842–4. De Kay, J. E. (N.Y.)
1850. Agassiz and Cabot. (Lake Sup.)
1852. Baird, S. F. (Utah)
1852. Geol. Survey Wis. and Iowa. (D. D. Owen)
1852. Leidy, Jos. (Paleon.)
1852. Stansbury, H. (Utah)
1853. United States. (Zuni and Colorado Riv.)
1853. U.S. Geog. and Geol. Surveys. (Colorado)
1853. Woodhouse, S. W. (S.W.)
1854. Warren, J. C. (Fossils)
1855–9. U.S. Pacific Rd. Survey.
1859–60. Suckley and Cooper. (Exped.)
1865. Josselyn, John. (New Eng.)
1866. Lord, J. K. (Brit. Colum.)
1868. Cronise, T. F. (Calif.)
1871. Ross, A. M. (Canada)
1873. Adams, A. L. (Quebec)
1873–90. United States Survey. (Territories)
1874–89. U.S. Geog. and Geol. Surveys. (W. of 100th Merid.)
1875. Harting, J. E. (Prybilov Islds.)
1877. Miller, S. A. (U.S.A. Fossils)
1878. Marsh, O. C. (Evol.)
1878. Nares, G. S. (North Pole)
1882. Forster, J. R. (Will. Soc. Hudson Bay.)
1882. Ohio, State of. (Zoology)
1883. Barton, B. S. (N. Am.)
1883. Corwin, Steamer. (Voy. Arctic)
1883. Stearns, W. A. (Labrador)
1885. U.S. Exped. Pt. Barrow. (Voy. Arctic)
1886. Turner, L. M. (N. Am.)
1889–date. U.S. Biol. Survey. (N. A. Fauna)
1894. Ord, Geo. (Reprint)
1895. Swann, H. K. (Nova Scotia)
1900. Stone, Witmer. (Alaska)
1901. Lucas, F. A. (Fossils)
1901. Osgood, W. H. (Br. Columbia)
1903. Merrill, F. J. H. (U.S.A. and Canada)
1903. Stone, W., and Cram, W. E. (Pop.)
1905. Nordenskjöld, N. O. G. (Antarctic)
1908. Gadow, Hans. (S. Mexico)
1909. Grenfell, W. T. (Labrador)
1909. Seton, E. T. (Manitoba)
1911. Williston, S. W. (Am. Fossils)
1913. Bailey, V. O. (Zoogeog. New Mexico)
1914. Hornaday, W. T. (U.S.A.)
1918. Nelson, E. W.
1920. Buchanan, Angus. (Canada)
1921. Donaldson, A. L. (Adirondacks)

U.S.A. and Canada—General Treatises, *continued.*

1923. Corneau, N. A. (Canada)
1924. Grinnell and Storer.
1924. Meisel, M. (Bib. U.S.A.)
1926. Wetmore, A. (Fossils)
1928. Cormack, W. E. (Newfdland.)
1929. Jordan, D. S. (North-East)
1930. Audubon, J. J. ('Audacious A.')

Birds

1731–43. Catesby, Mark. (N. Am.) (Carolina)
1807. Vieillot, L. J. P.
1808–14. Wilson, Alex.
1827–38. Audubon, J. J. (N. Am.)
1829. Wilson, Alex.
1832. Wilson, Alex. (Bonaparte)
1832–4. Nuttall, T. (U.S. and Can.)
1832–40. Nuttall, Thos. (Canada)
1832–49. Audubon, J. J. (Ornith. Biol.)
1834. Brown, Capt. Thos. (Game)
1835. Brown, Capt. Thos. (Wilson and Bonap.)
1839. Peabody, W. B. O. (Mass.)
(1840). Lichtenstein, M. H. C. (Pacific Coast)
1841. Giraud, J. P. (Texas)
1843. Linsley, J. H. (Conn.)
1844. Giraud, J. P. (L. Isld.)
1844. Giraud, J. P. (N.Y.)
1847–9. Gambel, William. (Calif.)
1852. Hoy, P. R. (Wis.)
1853–6. Cassin, John. (Calif.)
1854. Wilson and Brewer.
1855–9. Heermann, A. L. (S.W.)
1857. Brewer, Thos. M. (Oöl.)
1858. Baird, S. F. (Cat.)
1859–60. Wilson and Bonaparte.
1860. Cassin and Baird.
1864. Lemoine, J. M. (Canada)
1866–9. Elliot, D. G. (N. Am.)
1867–9. Bannister and Dall. (Alaska)
1869. Turnbull, W. P. (Penn.)
1870–80. U.S. Geolog. Explor. (40th Par.)
1871. Ross, A. M. (Canada)
1872. Coues, Elliott. (Key)
1872–81. Maynard, C. J. (U.S.A.)
1874. Brewer, Thos. M.
1874–84. Baird, Brewer, Ridgway.
1874. Coues, Elliott.
1874. U.S. Geog. and Geol. Surveys. (Utah)
1874. Yarrow, H. C. (Utah and Nevada)
1875. Brewer, T. M. (New England)
1875. Snow, F. H. (Kansas)
1876. Sumichrast, F. E. (S.W. Mexico)
1878. Pope, A. (U.S.A.)
1878. Studer, J. H.
1878–80. Coues, Elliott. (Bib.)
1879–86. Jones, H., and N. E. (Oöl. Ohio)
1880. Marsh, O. C. (Paleon.)
?1881–3. Stearns-Coues. (New Eng.)
1882. Brown, N. C. (Maine)
1882. Wheaton, J. M. (Ohio)
1883. Samuels, E. A.
1884. Reid, S. G. (Bermuda)
1886. Capen, E. (Oöl.)
1886–95. Check-list of North Am. Birds. (1–2)
1887. Chamberlain, M. (Cat. Canada)
1887. Ridgway, Robt. (Ill.)
1887. Ridgway, Robt. (Manual)
1889–95. Ridgway, R. (Illinois)
1890. Warren, B. H. (N. Am.)
1890–6. Nehrling, H. (U.S.A.)
1891. Thompson, E. E. (Canada)
1894. McIlwraith, T. (Ont.)
1894. Stone, W. (E. Peru)
1894. Studer, J. H. (N. Am.)
1895–1911. Beal, F. E. L. (Woodpeckers)
1895. Bendire, C. E.
1896. Ridgway, R. (Manual)
1896. Wintle, E. D. (Montreal)
1899. Cory, C. B. (E. N. Am.)
1900. Cooke, W. W. (Colorado)
1900. Palmer, T. S. (Protect.)
1900, 1915. Beal, F. E. L. (Bird Food)
1901–19. Ridgway, R.
1903. Dawson, W. L. (Ohio)
1904. Bruner, L. (Nebr.)
1904. Kermode, F. (Br. Columbia)
1906. Canada, A. P. Low. (Hudson Bay)
1906. Halkett, A. (Hudson Bay)
1909. Cory, C. B. (Ill. and Wis.)
1909. Dawson, W. L. (Wash.)
1910. Check List of N .Am. Birds. (Third A.O.U.)
1910. Cooke, W. W. (Shore birds. Migration)
1910 (1925). Trotter, S.
1910–14. Eaton, E. H. (New York)
1911. Howell, A. H. (Arkansas)
1912. Bent, A. C. (Behring Sea)
1912. Sclater, W. L. (Colorado)
1913. Bailey, H. H. (Va.)
1914. Swarth, H. S. (Arizona)
1916. Kalmbach, E. R. (Economic)
1919. Brimley, H. H. (N. Carolina)
1919. Burns, F. L. (Bib.)
1919. Swenk, M. H. (Neb.)
1919. Taverner, P. A. (Que.)
1921. Dawson, W. L. (Calif.)
1925. Brooks and Swarth. (Br. Col.)
1925. Coues, E. (Key)
1927. Chapman, Frank M.
1927. Henderson, Junius. (Econ. Ornith.)
1927. Hoffmann, R. (Pacific States)
1927–9. Bent, A. C. (Limicolae)
1928. Sutton, Geo. M. (Penn.)
1929. Bready, M. B. (Starling)
1929. Friedmann, Herbert. (Cowbirds)
1929. Hantzsch, B. (Labrador)
1930. Brasher, Rex. (Atlas)

Mammals

1825. Harlan, Richard. (U.S.A.)
1846. Audubon and Bachman. (U.S.A.)
1857–9. Baird, S. F. (Survey)
1859. Baird, S. F.
1862. Wied-Neuwied, Max. (N. Am.)
1864. Allen, H. (Bats)
1869. Allen, J. A. (Mass.)
1874. Scammon, C. M. (N.W. Coast)
1877. Caton, J. D. (Antelope and Deer)
1877. Coues, E. (Mustelidae)
1880. Allen, J. A. (Pinnipeds)
1886. Elliott, H. W. (Alaska)
1886. Roosevelt, T. (Game)

U.S.A. and Canada—Mammals, *continued.*

1887. Nelson and True. (Alaska)
1892. Herrick, C. L. (Minn.)
1893. Roosevelt, T. (Big Game)
1898–9. Jordan, D. S. (Seals)
1901. Elliot, D. G. (U.S.A.)
1902. Roosevelt, Theodore. (Deer)
1904. Hornaday, W. T.
1905. Elliot, D. G. (Check List)
1905. Roosevelt, T. (Game)
1908. Stone, Witmer. (New Jersey)
1909. Bangs, Outram. (Labrador)
1910. Warren, E. R. (N. Am.)
1912. Cory, C. B. (Ill. and Wis.)
1912. Miller, G. S. (U.S.A. List)
1913. Dugmore, A. R. (Newfoundland)
1914. Dugmore, A. R. (Beaver)
1917. Anthony, H. E.
1918. Stoner, D. (Iowa)
1922. Stone, Witmar.
1928. Anthony, H. E.

Fishes

1820. Rafinesque, C. S. (U.S.A.)
1833. Smith, J. V. C. (Mass.)
1839. Storer, D. A. (New England)
1846. Storer, D. A.
1849. Herbert, W. R. (U.S.A.)
1852. Perley, M. H. (New Brunswick)
1861. Gill, T. N. (East Coast)
1866. Knight, T. F. (Nova Scotia)
1873. Gill, T. N. (Bib.)
1876. Brown, J. J. (U.S.A.)
1879. Kilbourne and Goode. (Game)
1882. Jordan, D. S. (Ohio)
1883. Smith, J. V. C. (Mass.)
1884. United States, Bureau of Fisheries.
1890. Newberry, J. S. (Fossil. N. Am.)
1896–1900. Jordan and Evermann. (N. and Cent. Am.)
1899. Rafinesque, C. S. (Ohio)
1900–29. Rhode Island Comm. (Report)
1903. Goode, G. B.
1903. Holder, C. F. (Big Game)
1905. Jordan, D. S. (U.S.A.)
1907. Eastman, C. R. (Fossils)
1927. Cahn, A. R. (Wisc.)
1928. Southard, C. Z. (Trout)
1929. Breder, C. M. (Atlantic)

Reptiles and Amphibia

1827. Harlan, Richard. (U.S.A.)
1839. Humphrey, David. (U.S.A.)
1842. Holbrook, John Edwards.
1852. Baird and Girard. (Utah)
1868. Cope, E. D. (Paleon. N.J.)
1876. Cope, E. D. (Cat.)
1889. Cope, E. D. (Batr.)
1896. Cope, E. D. (Zoogeog.)
1897. Van Denburgh, J. (Pacific Coast)
1900. Cope, E. D.
1907. Fowler, H. W. (New Jersey)
1908. Hay, O. P. (Fossil Turtles)
1917. Stejneger and Barbour.
1922. Van Denburgh, J.
1930. Bailey, Vernon. (Yellowstone)

South America

General Treatises

1590. Acosta, José d'.
1633. Marcgrav, George Johan de Laet.
1648. Laet, J. de. (Brazil)
1769. Bancroft, E. (Guiana)
1773. Banks, Sir J. (Voy.)
1782. Molina, G. I. (Chile)
1805. Azara, F. de
1809. de Azara and Sonnini.
1815–21. Wied-Neuwied, Prince Max. (Voy. Brazil)
1817–35. Natterer, Johann. (Brazil)
1820–5. Mikan, J. C. (Brazil)
1822. Thunberg, C. P. (Dutch Guiana)
1822–31. Wied-Neuwied, Prince. (Brazil)
1823. Thunberg, C. P. (Brazil)
1823. Thunberg, C. P. (Fr. Guiana)
1823–31. Martius, Ch. F. P. (Brazil)
1834. Webster, W. H. B. ('Chanticleer' Voy.)
1835–47. d'Orbigny, A. D.
1842. U.S. Explor. Exped. (Wilkes)
1844–6. Tschudi, J. J. von. (Peru)
1844–71. Gay, Claude. (Chile)
1847. de Castelnau, Francis.
1847–8. Schomburgk, M. R. (Br. Guiana)
1849–52. Gilliss, J. M. (Naval Exped.)
1850–9. Castelnau, F. L. de L. de. (Tr.)
1853. Wallace, A. R. (Amazons)
1855. U.S. Naval Exped.
1863. Bates, H. W.
1870. Wallace, A. R. (Amazons)
1872. Hudson, W. H. (Argentine)
1875–80. Burmeister, C. H. (Argentine)
1879. Waterton, Chas. (Tr.)
1881. Doering, A. (Patagonia)
1881. Günther, A. C. L. G. (Magellan)
1885–91. Mission du Cap Horn. (Voy.)
1887. Ball, J. (Tr.)
1888. Fernando de Noronha. (Brazil)
1888. White, C. A. (Paleon.)
1892. Hudson, W. H. (La Plata)
1894. Rodway, J. (Br. Guiana)
1900. Buerger, O. (Tr.)
1901–10. Princeton Exped. (Patagonia)
1901–13. Belg. Exped. Antarc. (South Pole)
1902. Br. Mus. (Nat. Hist.) (Voy. 'Southern Cross')
1902–3. 'Gauss.' (South Pole Exped.)
1904. André, Eugène. (Guiana)
1907. Sao Paulo Museo. (Cat. Brazil)
1907–date. Br. Mus. (Nat. Hist.) (Voy. 'Discovery')
1909. David, T. W. E. (Antarctic)
1909. Shackleton, E. H. (Antarctic)
1910–date. Br. Mus. (Nat. Hist.) (Voy. 'Terra Nova')
1920–5. Mikan, J. C. (Brazil)

Birds

1807. Vieillot, L. J. P.
1847. Des Murs, O. (Chile)
1858. Sclater, P. L. (Ant-birds)
1866–9. Sclater and Salvin.
1868. Philippi, R. A. (Chile)

South America—Birds, *continued.*
1870. Sclater, P. L., and Salvin, O. (Curassows)
1871. Pelzeln, A. von. (Brazil)
1873. Sclater, P. L.
1874–82. Taczanowski, W. (Peru)
1878. Sclater and Salvin. (Cent. and S. Am.)
1883. Taczanowski, W. (Ecuador)
1884–6. Taczanowski, W. (Peru)
1885. Jhering, H. von. (Brazil)
1888–9. Sclater and Hudson (Argentina)
1890. Stempelmann, H., and Schulz, F. (Argentine)
1892. James, H. B. (Chile)
1894, 1900. Goeldi, E. A. (Brazil)
1900–06. Goeldi, E. A. (Atlas, Brazil)
1902. Stone, Witmer (Patagonia)
1906. Hellmayr, C. E. (Brazil; Class.)
1907. Crawshay, R. (Tierra del Fuego)
1912–17. Chubb, Chas. (Br. Guiana)
1914. Snethlage, E. (Brazil)
1915–17. Grönvold, H. (Atlas. Game)
1920. Hudson, W. H. (Argentina)
1929. Sturgis, B. B. (Panama)
1930. Laubmann, A. (Argentina)
1930. Palmstruch, J. W. (Gran Chaco Ex.)

Mammals

1802. de Azara, Félix. (S. Am.)
1823. Spix, J. B. (Brazil)
1830. Rengger, Johann R. (Paraquay)
1844–71. Gay, Claude. (Chile)
1880. Gervais and Ameghino. (Fossils)
1914–16. Brazil, Commissão. (Amazon)
1919. Allen, J. A. (Felidae)
1925. Hinton, M. A. C. (Whales)

Fishes

1829–31. Agassiz, Louis. (Brazil)
1835–47. Valenciennes, A. (Voy.)
1893. Eigenmann, C. H.
1899. Smitt, F. A. (Sts. Magellan)
1909. Eigenmann, C. H. (Patagonia)
1912. Eigenmann, C. H. (Br. Guiana)
1913. Angel. (Antarctic)
1917. Evermann and Radcliffe. (Peru)

Reptiles and Amphibia

1824. Spix, J. B. (Brazil)
1847. Bibron, G.
1892. Whymper, C. (Andes)
1899. Nordenskjöld, O. (Sts. Magellan)
1930. Gran Chaco Expedition.

Australasia

General Treatises

1729. Dampier, Wm. (Voy.)
1789. Phillip, A. (Voy.)
1790. White, John. (Voy. N.S.W.)
1793. Meyer, F. A. A. (Voy.)
1794. Shaw, Geo. (Aust.)
1822. Thunberg, K. P. (New Holland)
1827. King, P. P. (W. Aust.)
1834. Bennett, George. (Tr.)
1843. Backhouse, J. (Aust. Colonies)
1843. Diffenbach, E. (N.Z. Tr.)
1843. Gray, J. E. (N.Z.)
1844. Forster, J. R. (Aust.)
1849. Sturt, C. (Exped.)
1855. Taylor, R. (N.Z.)
1860. Bennett, Geo. (Voy.)
1865. Krefft, Gerhard. (Aust.)
1878–90. McCoy, F. (Victoria)
1889. Queensland. (Exped.)
1890–8. Queensland. (Br. New Guinea)
1893. Haeckel, E. (Aust.)
1893. Semon, R. W.
1896. Aflalo, F. G. (Nat. Hist.)
1896. Horn, Wm. A. (Cent. Aust.)
1897. Saville-Kent, W. (Aust.)
1904. Hutton, F. W. (Cat. N.Z.)
1904. Hutton and Drummond. (N.Z.)
1907. Le Souëf, W. H. D.
1909. Chilton, Chas. (N.Z.)
1914. Br. Ass. Ad. Sc. (N.S. Wales)
1923. Leach, J. A. (Aust.)
1924. Banfield, E. J. (Queensland)
1924. Downe, T. E. (N.Z. Game)
1930. Martin, W. (Pop. N.Z.)

Birds

1808. Lewin, J. W. (New Holland)
1838. Lewin, J. W. (N.S.W.)
1840–8. Gould, John. (Aust.)
1848–69. Gould, John. (Aust.)
1865. Gould, John. (Aust. Handbook)
1866–77. Diggles, S. (Aust.)
1871. Hutton, F. W. (N.Z.)
1872–3. Buller, Walter. (N.Z.)
1877. Diggles, S. (Aust.)
1882. Buller, W. L. (N.Z.)
1883. Campbell, A. J. (Oöl. Aust.)
1888. Broinowski, G. J. (Parrots)
1888. Buller, Walter. (N.Z.)
1888. Ramsay, E. P. (Aust.)
1891–8. Sharpe, R. B. (Bower birds)
1899. Hall, R. (Dist.)
1900. Campbell, A. J. (Oöl. Aust.)
1911–28. Mathews, Gregory.
1912–date. (R.) Austr. Ornith. Union. (List)
1923. Leach, J. A. (Aust.)
1926. Seth-Smith, D. (Parrakeets)
1927. Guthrie-Smith, H. (N.Z. Pop.)
1930. Oliver, W. R. B. (N.Z.)

Mammals

1845–63. Gould, John. (Aust.)
1871. Krefft, J. L. G.
1888. Thomas, O. (Marsupials)
1894. Lydekker, R. (Marsup.)
1909. Le Souëf and Lucas.
1914. Haswell, W. A. (N.S.W.)
1923–5. Jones, F. W. (S. Aust.)
1924. Donne, T. E. (N.Z. Game)

Fishes

1872. Hutton and Hector. (N.Z.)
1882. Woods, J. E. T. (N.S.W.)
1896. Hamilton, A. (N.Z.)
1898. Waite, E. R. (N.S. Wales)
1906. Stead, D. G. (Aust.)

Australasia—Fishes, *continued.*

1908. Stead, D. G. (N.S.W.)
1914. McCullough, A. R. (N.S.W.)
1916. Roughley, T. C. (Aust.)

Reptiles and Amphibia

1841. Grey, J. E.
1869. Krefft, J. L. G. (Aust.)
1914. Lucas, A. H. S. (N.S.W.)

Belgium and Holland

General Treatises

1838. Anslijn, N.
1842. de Selys-Longchamps, M. E. (Belg.)
1860–78. Schlegel, H. (Holl.)
1861. Schlegel, Hermann. (Holl.)
1876–94. Dubois, Alphonse. (Belg.)
1897. Maitland, R. T. (Belg.)

Birds

1770–1829. Nozeman, C. (Holl.)
1789–1829. Houttuyn, M. (Holl.)
1822. Anslijn, N. (Holl.)
1851–60. Dubois, Ch. F. (Belg.)
1854. Schlegel, Hermann. (Holl.)
1875. Fallon, F. F. M. (Belg.)
1878. Schlegel, H. (2nd Ed. Holl.)
1897. Albarda, J. H. (Holl.)
1897. Blaauw, F. E. (Holl.)
1903. Buekers, P. G. (Pop.)
1905, 1907. Contreras, M. de. (Belg.)
1908. Snouckaert van Schauburg, R. C. (Holl.)
1928. Van Havre, G. C. M. (Belg.)

Mammals

1880. van Beneden, P. J. (Cetaceans)

China and Japan

General Treatises

1782. Sonnerat, P. (China)
1822–3. Thunberg, C. P. (Japan)
1823. Thunberg, C. P. (China)
1833. Temminck, C. J. (Japan)
1833–50. Siebold, P. F. (Japan)
1856. U.S. Exped. Japan. (Perry)
1858–1900. Schrenk, P. L. von. (Manchuria)
1864. Mouhot, A. H. (Indo-China)
1870. Adams, A. (Tr. Japan)
1870. Swinhoe, R.
1878. Western Yunnan Expedition. (S.W. China)
1892. Pratt, A. E. (China)
1912. Clark and Sowerby. (N. China)
1922–3. Sowerby, A. de C. (Manchuria)

Birds

1871. Gray, G. R. (China)
1877. David and Oustalet. (China)
1882. Blakiston and Preyer. (Japan)
1886. Stejneger, L. H. (Review; Japan)
1890. Seebohm, H. (Japan)
1897. Snow, F. H. (Japan)
1909. Bamberg, O. (China)
1928. Bangs, Outram. (Tibet)
1929. Wilkinson, E. S. (Shanghai)

Mammals

1858–90. Schrenck, P. L. von. (Manchuria)
1913. Wallace, H. F. (Game)
1929. Roosevelt, T.

Fishes

1911–date. Tanaka, S. (Japan)
1913. Jordan, D. S., and others. (Japan)

Reptiles and Amphibia

1907. Stejneger, L. H. (Japan)
1925. Mell, R. (China)

Egypt, Syria, and Palestine

General Treatises

1812. Saint-Hilaire, E. G. *et al.* (Description d'Égypte)
1828–45. Ehrenberg and Hemprich. (Egypt)
1841. Kitto, J. (Palestine)
1856–69. Tchihatcheff, P. de. (Asia Minor)
1865. Tristram, Canon H. B. (Palestine)
1873. Salvadori, T. A. (Red Sea)
1884. Tristram, Canon. (Palestine)
1905. Gaillard and Daressy. (Egypt. Mummy)

Birds

1809. Savigny, M. J. C. L. de.
1852. U.S. Exped. Palestine. (Cassin)
1872. Shelley, G. E. (Egypt)
1883. Audouin, J. V. (Egypt. Syria)
1912. Nicoll, M. J. (Egypt)
1925. Brooksbank, F. H. (Egypt)

Fishes

1887. Davis, J. W. (Syria, fossil)
1921. Flower, S. S. (Egypt)

France and Switzerland

General Treatises

1680. Wagner, J. J. (Switz.)
1737. de Plantade, F. (France)
1820–3. Vieillot, L. J. P. (France)
1821–date. Mém. Soc. d'Hist. Nat. (Geneva)
1826. Risso, A. (S. France)
1837. Schinz, H. R. (Swiss)
1844. Crespon, J. (France)
1850. Gervais, Paul. (France)
1861–4. Companyo, Louis. (S. France)
1863–7. Ogérien. (Jura)
1869. Fatio, V. (Switz.)
1873. Pichot, P. A. (Paris)
1882. Réguis, J. F. M. (S. France)
1888–97. Gadeau de Kerville. (Normandy)
1896–1900. Aclogue, A. (France)
1910. Francé, R. H. (Alps)

France and Switzerland, *continued.*

Birds

1815. Meisner and Schinz. (Switz.)
1825–30. Roux, J. L. F. P. (S. France)
1840. Crespon, J. (S. France)
1843–4. Bouteille and Labatie. (France)
1849. Degland, C. D. (France)
1859–6. Jaubert and Barthelemy-Lapommeraye. (France)
1864. Necker, L. A. (Switz.)
1876. Stölker, C. (Switz.)
1889. Fatio and Studer. (Switz.)
1892. Studer, T., and Fatio, V. (Cat. Switz.)
1897. Ternier, L. (France)
1899. Paquet, René. (France)
1909. Ménégaux, H. A. (France)
1916. Studer, T.

Mammals

1837. Schinz, H. R. (Swiss)

Fishes

1810. Risso, A. (S. France)
1866. Blanchard, C. E. (France)

Reptiles and Amphibia

1910. Boulenger, G. A. (France. Batr.)

Germany and Middle Europe

General Treatises

1721. Rzaczynski, Gabriel. (Poland)
1726. Marsigli, L. F. (Danube)
1786–8. Scopoli, G. A. (Austria)
1797–1828. Koch and Sturm. (Ger.)
1816. Koch, C. L. (Bavaria)
1830–5. Reider and Hahn. (Bavaria)
1834–7. Lorek, C. J. (N. Ger.)
1837–9. Reichenbach, H. G. L. (Ger.)
1840. Koch and Fuernrohr. (Bavaria)
1840. Zawadzki, A. (Poland)
1882–3. Müller, A. and C. (Ger.)
1897. Blasius, R. (Brunswick)
1900. Budapest Fauna. (Hung.)
1927–9. Dahl, F. T. (N. and Cent. Europe)
1928. Thienemann, J. R. (Station)
1929. Brohmer, P. (Geog.)

Birds

1734–63. Frisch, J. L. (Ger.)
1797–1808. Naumann, J. A. (Ger.)
1800–11. Borkhausen, M. B. (Ger.)
1805–21. Wolf and Meyer. (Ger.)
1810–22. Wolf and Meyer. (Ger.)
1818–28. Naumann and Buhle. (Ger. Oöl.)
1820–44. Naumann, J. A. (Ger.)
1825–9. Roux, J. L. F. P. (Mid. Eur.)
1831. Brehm, C. L. (Ger.)
1833. Gloger, C. W. L. (Ger.)
1837–53. Zander, H. D. F. (Ger.)
1853–4. Bailly, J. B. (Savoy)
1860. Naumann-Blasius. (Ger.)
1869. Borggreve, Bernard. (N. Ger.)
1869. Droste-Huelshoff, F. von. (Cent. Eur.)
1871. Koch, G. von. (Ger.)
1874. Willibald, E. (Oöl.)
1876. Riesenthal, O. (Cent. Eur.)
1877. Homeyer, Eugen von. (Ger.)
1877. Tschusi-Schmidhofen, V. von. (Tyrol.)
1878. Schmidhofen, V. von Tschusi. (Bib. Aust.-Hung.)
? 1882–4. Reichenow, A. (Ger.)
1890. Keller, F. C. (Carinthia)
1891. Jaeckel, A. J. (Bavaria)
1897–1905. Naumann, J. A. (Ger.)
1899–1903. Madarász, G. (Hung.)
1900. Wuestnei, Carl. (Mecklenburg)
1909. Suolahti, H. (Ger.)
1912. Dahl, C. F. T. (Mid. Eur.)
1912. Rey, E. (Mid. Eur.)

Mammals

1833. Gloger, C. W. L. (N. Ger.)
1857. Blasius, J. H. (Ger.)
1869. Stralsund Museum. (Ger.)

Fishes

1863. Siebold, C. T. E. von. (Mid. Eur.)
1870. Weber, J. C. (Mid. Eur.)
1909. Grote, W. (Cent. Eur.)
1909. Vogt, C. (Mid. Eur.)

Reptiles and Amphibia

1799–1805. Wolf, Johann. (Ger.)
1896. Fraas, E. (Mid. Eur. Paleon.)
1897. Dürigen, Br. (Ger.)
1913. Sternfeld, R. (Mid. Eur.)

Great Britain

General Treatises

1496. Berners, Juliana. (Reprint, 1810)
1662. Childrey, Joshua.
1666. Merrett, C.
1674. Ray, J. (Cat.)
1677. Boate, Gerard. (Ireland)
1677. Plot, Robt.
1684. Sibbald, Robt. (Scotland)
1686. Plot, Robt.
1700. Leigh, Chas.
1766. Pennant, T.
1769. Berkenhout, J.
1789. White, Gilbert. (Selborne)
1797. Bewick, T.
1807. Turton, W.
1813. Low, Geo. (Orkneys)
1820. Donovan, E.
1828. Fleming, Dr. John.
1835. Jenyns (Blomefield).
1838–44. Couch, Jonathan. (Cornwall)
1846. Forbes, Edward. (Geog. G.B.)
1849–56. Thompson, William. (Ireland)
1854. Morris, J. (Fossils)
1879. Lubbock, R. (Norfolk)
1880. Patterson, Robt. L. (Ireland)
1891. Buckley and Harvie-Brown.
1898. Aflalo, F. G.
1899. Evans and Buckley. (Shetlands)

Great Britain—General Treatises, *continued.*

1903–4. Woburn Library. (G.B. Serials)
1907. Forrest, H. E. (North Wales)
1910–13. Andrews, C. W. (G.B. Paleon.)
1911. Evans, A. H. (Tweed Area)
1926. Grey, Viscount, of Fallodon.
1929. Batten, H. M.

Birds

1460. Dame Berners. (Hawking)
1666. Merrett, C.
1737. Albin, E. (Song-birds)
1773. Pennant, Thos. (G.B. Class.)
1788–9. Walcott, John.
1789–94. Lewin, William.
1791. Lord, Thos.
1811–21. Graves, George.
1815–22. Hunt, John.
1816. Graves, George. (Oöl.)
1820. Atkinson, J.
1821–34. Selby, P. J. (Col. Atlas)
1822. Müller, H. C. (Faeroes)
1823. Syme, P. (Song-birds)
1825–33. Selby, P. J.
1835–50. Meÿer, H. L. (G.B. Atlas)
1836. Eyton, T. C.
1836. Wood, Neville. (Song-birds)
1837–43. Yarrell, W.
1837–52. Macgillivray, W.
1837–85. Yarrell, W. (4 eds.)
1839. Beilby, R. (Land-birds)
1843. Meÿer, H. L.
1845. Bolton, J.
1846. Macgillivray, Wm.
1851–7. Morris, F. O.
1853. Watters, J. J. (Ireland)
1853–6. Morris, F. O.
1855. Morris, R. R.
1856. Hewitson, W. C. (Oöl.)
1858. Laishley, R. (Oöl.)
1861. Atkinson, J. C. (Oöl.)
1861. Newman, E. (Oöl.)
1863. Gray, G. R. (Cat.)
1869. Sterland, W. J. (Sherwood Forest)
1870. Seeley, H. G. (Fossils)
1873. Salvin and Brodrick. (Falconry)
1874. Saxby, H. L. (Shetland)
1877. Wharton, H. T.
1879. Beckwith, W. E. (Shropshire)
1879. Moore, G. P. (Geog. Dist.)
1880. Butler, A. G. (Oöl.)
1880. Tunstall, M.
1881–7. Booth, E. T.
1883–5. Seebohm, H. (Oöl.)
1885. Lilford, Lord. (Atlas)
1892. Pigott, T. D. (London)
1892–4. Swann, H. K. (London)
1895–6. Poynting, F. (Oöl.)
1896. Mosley, S. L.
1896. Seebohm, H. (Oöl.)
1896. Swann, H. K.
1897. Marchant and Watkins. (Protection)
1898. Duncan, John.
1899. Saunders, H. (Manual)
1900. Ussher and Warren. (Ireland)
1901. Selous, E. (Bird watching)
1902. Millais, J. G.
1906–11. Stonham, Chas.
1907. Balston, R. J. (Kent)
1907. Nelson, T. H. (Yorkshire)
1907–14. Howard, H. E. (Warblers)
1909. Birchley, S. W. (Cage)
1913. Collinge, W. E. (Food)
1913. Swann, H. K. (Dict.)
1915. Br. Ornith. Union. (List)
1922. Massingham, H. J. (Pop.)
1923. Coward, T. A. (Pop.)
1930. Stonham, Chas.

Mammals

1809. Bingley, Wm. (Pop.)
1815. Anonymous. (Pop.)
1828. Fleming, J.
1837. Bell, Thomas.
1863. Rowe, J. B. (Devon)
1876. Alston, E. R. (Scotland)
1892. Evans, Wm. (Scotland)
1895. Lydekker, R.
1899. Lee, R. B. (Dogs)
1903. Johnston, Sir Harry H.
1904–6. Millais, J. G.
1927. Westell, W. P. (Pop.)
1928–30. Batten, H. M. (Pop.)

Fishes

1760. Lhuyd, E. (Fossils)
1802–1808. Donovan, E.
1822. Walton and Cotton. (Complete Angler)
1835–6. Yarrell, Wm.
1836–59. Yarrell, W. (3 eds.)
(1839). Jardine, W. (Salmonidae)
1859. Yarrell, Wm. (3rd ed.)
1862–5. Couch, Jonathan.
1865. Bertram, J. G. (Pop.)
1875. McIntosh, W. C. (Scotland)
1876. Walton, Izaak. (Compleat Angler)
1877. Couch, J.
1879. Houghton, Wm.
1880. Berners, Dame Juliana. (Reprint, 1496)
1880–4. Day, F.
1881. Patterson, R. L. (Ireland)
1886. Cholmondeley-Pennell, H.
1896. Cunningham, J. T.
1904. Aflalo, F. G.
1904. Maxwell, H. E.

Reptiles and Amphibia

1837. Bell, T.
1839. Bell, Thomas.
1928. Westell, W. P. (Pop.)

India and Ceylon

General Treatises

1781. Forster, J. R. (India)
1790. Pennant, T. (India)
1805. Percival, R. (Ceylon)
1830–5. Gray, J. E. (India)
1830–4. Hardwicke and Gray. (Atlas)
1834. Bélanger, Charles. (Voy. India)

India and Ceylon—General Treatises, *continued.*

1846–9. Falconer, Hugh. (Fossils, India)
1850. Mason, F. (Burma)
1852. Kelaart, E. F. (Ceylon)
1860. Mason, F. (Burma)
1861. Tennent, J. E. (Ceylon)
1875. Blyth, E. (Burma)
1877. Baldwin, J. H. (Game, Bengal)
1884. Murray, Jas. A. (India)
1888. Blanford and Oates. (Br. India)
1888. 'Ilaju'l-bahā'im. (Hindustani lith.)
1892. Alcock, A. W. (Tr., India)
1903–date. Spolia Zeylanica. (Ceylon, Period.)
1906. Dewar, D. (Br. India)
1920. Hingston, R. W. G. (Himalayas)
1929. Wood, Casey A. (Ceylon)

Birds

1825. Butler, E. A. (Bombay)
1847. Jerdon, T. C. (India)
1862–4. Jerdon, T. C. (Br. India)
1873–5. Hume, Allan. (Oöl., India)
1877. Holdsworth, E. W. H. (Ceylon)
(1878–80). Hume and Marshall. (Game)
1878–80. Legge, W. V. (Ceylon)
1883. Oates, E. W. (Burma)
1885. Barnes, H. E. (Bombay)
1887–8. Murray, Jas. A. (India)
1888. Le Messurier, A. (Game)
1889–90. Hume, A. O. (Oöl.)
1890. Reid, Geo. (Cat. India)
1901. Finn, F. (Cat. India)
1908. Baker, E. C. S. (India, Ducks)
1913. Baker, E. C. S. (Pigeons and Doves)
1913. Dewar, D. (India)
? 1922–date. Baker, E. C. S. (Br. India)
1925. Wait, H. (Ceylon)
1927–9. Wait and Henry. (Atlas, Ceylon)

Mammals

1794. Faras-nāma. (Persian MS.)
1812. Tibb-i-aspān. (India, Hind. MS.)
1839. Ogilby, W. (Himalayas)
1867. Jerdon, T. C. (India)
1867. Tennent, J. E. (Ceylon elephant)
1874. Jerdon, T. C. (India)
1877. Baldwin, J. H. (Bengal and N.W. India)
1884. Sterndale, R. A. (Ceylon, India)
1888–91. Blanford, W. T. (Br. India)
1923. Brander, A. A. D. (India)

Fishes

1803. Russell, P.
1822. Buchanan (Hamilton). (Ganges)
1841. Bennett, J. W. (Ceylon)
1862–78. Bleeker, P. (Atlas, Dutch Indies.)
1889. Day, F. (India)
1899. Alcock, A. W. (Calcutta Museum)
1902. Alcock, A. W. (Voy.)

Reptiles and Amphibia

1796. Russell, P. (Snakes)
1812. Sinhalese, Ola. (Sinhalese MS.)
1864. Günther, A. C. L. (Br. India)
1872. Fayrer, J. (Snakes)
1876. Theobald, W. (Br. India)
1888. Boulenger, G. A. (Br. India)
1921. Wall, F. (Ceylon)

Italy and Southern Europe

General Treatises

1674. Boccone, P. (or S.). (Sicily)
1783–4. Cetti, F. (Sardinia)
1829–86. Costa, O. G. (Sicily)
1832–5. Bory de Saint-Vincent, J. B. G. M. (S. Eur.)
1832–42. Bonaparte, Lucien. (Italy)
1847. Renier, S. A. (Adriatic)
1870–4. Cornalia, E. (Italy)
1878–80. Camerano, L. (Italy)
1880. Giglioli, E. H. (Italy)
1911–date. Dehaut, E. G. (Sardinia)

Birds

1776. Cetti, F. (Sardinia)
1827–31. Savi, P. (Tuscany)
1828. Giglioli, E. H. (Italy)
1840. Benoit, Luigi. (Sicily)
1842. Cara, G. (Sardinia)
1843. Malherbe, A. (Sicily)
1843. Schembri, A. (Malta)
1845. Monti, M. (Italy)
1860. Lindermayer, A. (Greece)
1864. Salvadori, Count. (Sardinia)
1871. Salvadori, T. (Italy)
1879–94. Manzella, A. (Atlas, Italy)
1886–91. Savi, P. (Italy)
1890. Bühler, Capt. (Balkans)
1895. Irby, L. H. L. (Gibraltar)
1895. Motorelli, G. (Sardinia)
1900. Gaal de Gyula, G. (Migr.)
1906. Brusine, S. (Balkans)
1920. Stresemann, E. (Greece)
1927. Craveri, M. (Italy)
1929. Arrigoni degli Oddi (Italy)

Mammals

1774. Cetti, F. (Sardinia)
1777. Cetti, F. (Sardinia)

Fishes

1524–7. Giovio, Paolo. (Italy)
1777. Cetti, F. (Sardinia)
1883. Faber, G. L. (Adriatic)
1894. Gourret, P. (Medit.)
1916. Supino, F. (Italy)

Reptiles and Amphibia

1774. Cetti, F. (Sardinia)
1874. Betta, F. E. de. (Italy)
1911. Griffini, A. (Italy)

Malaysia, Borneo and Philippines

General Treatises

1707. Sloane, Hans. (E. Indies)
1776. Sonnerat, P. (Papua)
1782. Sonnerat, P. (E. Indies)
1817. Raffles, Stamford. (Java)
1821. Horsfield, Thos. (Java)
1824. Horsfield, Thos. (Java)
1839–44. Müller, S. and Schlegel, H. (Dutch E. Indies)
1839–45. Temminck, C. J. (Dutch E. Indies)
1855. Motley and Dillwyn. (Labuan)
1869. Wallace, A. R. (Malaysia)
1887. Snelleman, J. F.
1889. Hickson, S. J. (Celebes)
1890–7. Weber, Max. C. W. (E.I. Tr.)
1893. Semon, R. W. (Malaysia)
1893. Whitehead, J. (North Borneo)
1894. Büttikofer, J. (E. Indies)
1894. Worcester and Bourns. (Philippines)
1903–7. Annandale and Robinson. (Malaysia)
1906–date. Wichmann, C. E. A. (New Guinea)
1914. Haniël, Curt B. (Malaysia)
1914–16. Grant, W. R. O. (Dutch New Guinea)
1926. Wells, Carveth. (Malay.)
1927. Enriquez, C. M. D.

Birds

1822. Horsfield, Thos. (Java)
(1835). Havell, R. (Paradise)
1863. Schlegel, H. (Dutch E. Indies)
1880. Burbidge, F. W. (Borneo)
1882–91. Salvadori, T. A. (Papua)
1884. Blasius, W. (Celebes)
1889. Hickson, S. J. (Celebes)
1891–8. Sharpe, R. B. (Paradise)
1898. Meyer and Wigglesworth. (Celebes)
1906. McGregor and Worcester. (Philippines)
1927. Bucknill and Chasen. (Singapore)
1929. Robinson, H. C. (Malaysia)

Mammals

1832. Sykes, W. H.
1890. Steere, J. B. (Philippines)
1893. Hose, Chas. (Borneo)
1912. Hollister, N. (Philippines)
1924. Mayer, C.

Fishes

1705. Rumpf, G. E.
1862–72. Bleeker, P. (Dutch E. Indies)
1906–30. Wichmann, C. E. A. (New Guinea)
1911–28. Weber and Beaufort. (Indo.-Aust.)
1920. Gilbert, C. H. (Philippines)

Reptiles and Amphibia

1906–30. Wichmann, C. E. A. (New Guinea, Amphibia)
1906–30. Wichmann, C. E. A. (New Guinea, Reptiles)
1915–17. Rooij, N. de. (Indo.-Aust.)
1916. Gyldenstolpe, N. (Siam)

Oceania and the South Seas

General Treatises

1773. Banks, J. (Voy.)
1776. Sonnerat, P. (Voy.)
1784. Cook, Captain Thos. (Voy.)
1822. Thunberg, C. P. (Aust.)
1867. Hartlaub and Finsch. (Cent. Polyn.)
1875. Sharpe, R. B. (Oceania)
1877. Streets, T. H. (Hawaii)
1879. Roy. Soc. London. (Kerguelen Isld.)
1879. Roy. Soc. London. (Rodriguez)
1893. Semon, R. W. (Oceania)
1897. Saville-Kent, W. (Tr.)
1898–1902. Willey, A. (Exped.)
1900. Andrews, C. W. (Christmas Isld.)
1916. Shelford, R. W. C.

Birds

1859. Gray, G. R.
1865. Gould, John.
1867. Finsch and Hartlaub. (Polyn.)
1880–91. Salvadori, T. (Papuasia)
1881. Gould, John. (New Guin.)
1884. Wilson and Evans. (Hawaii)
1888. Buller, Walter. (N.Z.)
1890–9. Evans, A. H. (Hawaii)
1890–9. Wilson, S. B. (Hawaii)
1891. Wigglesworth, L. W. (Polyn.)
1893–1900. Rothschild, L. W. (Hawaii)
1901. Bryan, W. A. (Hawaii)
1902. Henshaw, H. W. (Hawaii)
1906. Worcester and McGregor. (Phil. Islds.)
1913. Sarasin, F.
1925–6. Wood and Wetmore. (Fiji)
1928. Mathews, Gregory. (Norfolk Isld.)

Mammals

1859. Gray, J. E. (New Guinea)
1900. Andrews, C. W. (Christmas Isld.)

Fishes

1873–1910. Guenther, A. (South Seas)
1905. Jordan and Evermann. (Hawaii)
1906. Jordan and Searle. (Samoa)
1911–28. Weber and Beaufort. (Indo.-Aust.)
1926. Douglas and Johnson. (South Seas)

Russian Empire

General Treatises

1556. von Herbertstein, Sig. (Russ.)
1770–84. Gmelin, J. F. (Russ.)
1771–76. Pallas, P. S. (Tr.)
1774–80. Pallas, P. S. (Russ.)
1829. Humboldt, Alex. (Russ. Tr.)
1831. Pallas, P. S. (Zoogeog.)
1834–8. von Eichwald, C. E. (Tr. Caucasus)
1840–2. Demīdov, Prince. (Tr. So. Russ.)

Russian Empire—General Treatises, *continued.*

1842. Pallas, Peter. (As. Russ.)
1847–75. von Middendorf, A. T. (Siberia)
1852–68. von Eichwald, C. E. (Russ. Paleon.)
1856. von Hofmann, Ernst. (Russ.-Asia)
1858–1900. von Schrenck, P. L. (Russ.-Asia)
1862. Radde, G. (S.E. Siberia)
1873. Syevertzov, N. A. (Dist. Turkestan)
1880. Seebohm, H. (N.E. Russ.)
1882. Seebohm, H. (Siberia)
1899. Pearson, H. J. (N. Russ.)
1906. Lönnberg, E.
1921. Syevertzov, N. A. (Trans. Russ.)

Birds

1879. Bogdanov, M. N. (Caucasus)
1884. Radde, G. F. R. (Caucasus)
1884. Bogdanow, M. N. (Empire)
1887. Lorenz, Th. (Caucasus)
1887. Palmén, J. A. (Siberia)
1888–91. Pleske, T. D. (Empire)
1894. Reiser, Othmar. (Balkans)
1897. Somow, N. N. (Kharkow)
1907. Byal-Birulya, A. A. (Siberia)

Mammals

1766. Pallas, P. S.

Fishes

1856. Pander, C. H. (Russ. fossils)

Reptiles and Amphibia

1881–83. Kiprijanoff, W.

Scandinavia and Northern Europe

General Treatises

1746. Linnaeus, C. (Sweden)
1755. Pontoppidan, E. L. (Norway)
1758. Horrebov, Niels. (Iceland)
1780. Fabricius, O. (Greenland)
1788–1806. Müller, O. F. (Scand.)
1791. Fischer, J. B. (Livland)
1800. Retzius, A. J. (Sweden)
1806. Quensel, Conrad. (Sweden)
1806–9. Palmstruch, J. W. (Sweden)
1820–55. Nilsson, Sven. (Scand.)
1823. Thunberg, C. P. (Sweden)
1832–50. Voyage en Islande. (Iceland)
1835–6. Gaimard, Paul. (Voy. N. Eur.)
1838. Reinhardt, J. C. H. (Greenland)
1842–4. 'Recherche' (Voy. N. Eur.)
1846. Holböll, C. P. (Greenland)
1846–77. Koren, J. (Norway)
1846–77. Sars, Michael. (Geog. Norway)
1854. Lloyd, L. (Scand.)
1858. Nilsson, S. (Scand.)
1862. Baring-Gould, S. (Iceland)
1865. Wheelwright, H. W. (Scand.)
1869. Bowden, John. (Norway)
1871. Wheelwright, H. W. (Lapland)
1873–4. Bremen. Geog. Gesell. (North Pole)
1878–1907. Schiödte, J. C. (Den.)
1879. Kinberg, J. G. H. (Oöl.)
1895. Trevor-Battye, A. B. R. (Arctic)
1900–date. Roemer and Schaudinn. (Arctic)
1903. Kennedy, E. B. (Scand.)
1907–date. Danmarks Fauna. (Den.)
1909. Mela, A. J. (In Finnish)
1910. Dahl, Svend. (Danish Zool. Dict.)

Birds

1764. Brunnich, M. T. (Scand.)
1787. Heerkens, G. H. (Frisian Islds.)
1792. Beseke, J. M. (Courland)
1822. Faber, F. (Iceland)
1828. Walter, J. E. C. (Scand.)
1846. Holböll, C. P. (Greenland)
1847. Wright, M. (Finland)
1851–6. Kjaerbølling, Niels. (Den.)
1856–73. Sundevall, C. J. (Sweden)
1859. Wheelwright, H. W. (Scand.)
1864. Collett, R. (Norway)
1866–75. Holmgren, A. E. (Scand.)
1867–71. Widegren, H. (Pop.)
1868–71. Collett, R. (Norway)
1873. Palmén, J. A. (Finland)
1873. Wright, M. von. (Finland)
1874. Ringius, G. E. (Scand.)
1879–88. Sundman, G. and Palmén, J. (Finland)
1886. Sundström, C. R. (Sweden)
1895. Gätke, H. (Heligoland)
1895. Loewis, O. von. (Song-birds)
1898. Winge, H. (Greenland)
1898–1902. Kolthoff and Jägerskiöld. (Norway)
1901. Slater, H. H. (Iceland)
1902–3. Dresser, H. E. (Palearctic)
1911. Koenig, A. F.
1911–26. Jägerskiöld and Kolthoff. (Norway)
1911. Shackleton, E. (Antarctic)
1917–29. Wright-Lönnberg. (Sweden)
1926. Kolthoff, G. I.
? 1926–date. Schiøler, E. L. (Den.)
1929. Hartling, Ivar. (Finland)
1930. Molineux, H. G. K. (Palearctic.)

Mammals

1823. Scoresby, W. (Whales, Greenland)
1866. Lilljeborg, W. (Scand.)
1902. Winge, H. (Greenland)

Fishes

1624. Schonevelde, S. (N. Eur.)
1835. Ekström, C. U. (Sweden)
1844. Ørsted, A. S.
1846–56. Sars and others. (Scand.)
1862. Widegren, H. (Sweden)
1875. Lütken, C. (Greenland)
1883–93. Reuter and Mela. (Finland)
1891. Lilljeborg, W. (Scand.)
1892–5. Fries and others. (Scand.)
1892–5. von Wright, W. (Scand.)
1894. Vaillant, L. (Arctic)
1895. Stuxberg, A. (Scand.)
1918. Green, Neal. (North Sea)
1920. Schager, C. H. (Sweden)

Spain and Portugal

General Treatises

1817–19. Blanchard, Pedro. (Portugal)
1856. Rosenhauer, W. G. (Spain)

Birds

1869. Barboza du Bocage, J. V. (Portugal)
1870. Smith, A. C. (Portugal)
1875. Irby, L. H. L. (Gibraltar)
1888. Irby, L. H. L. (Gibraltar)
1909. Veiner, Willoughby. (Spain)
1924. Tait, W. C. (Portugal)

Mammals

1903–30. Madrid. See *Memorias* and *Boletin* of the *R. Soc. Esp. de Historia natural.* (Spain and Port.)

Fishes

1866. Capello, F. de B. (Portugal)
1868. Barceló y Combis, F. (Spain)
1870. Comisión permanente de pesca. (Spain)
1897–8. Sauvage, H. E. (Port. Pal.)

Reptiles

1876. Barceló y Combis, F. (Spain)
1903–30. Soc. Esp. de Hist. Nat. (Memorias)
1898. Sauvage, H. E. (Paleont. Port.)

C. A PARTIALLY ANNOTATED CATALOGUE OF THE TITLES ON VERTEBRATE ZOOLOGY IN THE LIBRARIES OF McGILL UNIVERSITY.

THIS section is essentially an *author's catalogue*, chronologically arranged. In the absence of any name entitled to authorship, real or assumed, in the work under inspection, the title is listed under the caption 'Anonymous', with a secondary heading of the first principal word of the title and, when deemed useful, cross references are also given.

Titles of periodicals—those bugbears of the Cataloguer—are generally entered under the name of the particular society or body presumed to be responsible for their issue. In addition a cross reference is made to the ordinary title of the magazine or serial, if this precaution is deemed necessary to assist in finding the publication in question. The same treatment is accorded Expeditions, Surveys, and Explorations by Governments, Societies, Museums, or other bodies.

In most of the Catalogue captions the definite and indefinite adjectives or articles as well as certain prepositions (*de*, *von*, *van*, *d'*, *der*, *di*, *della*, &c.) are ignored.

This Introduction and Catalogue will not notice to any extent elementary college and school text-books on vertebrates. It also passes over lightly the literature of veterinary medicine or surgery, of anthropology, microscopical anatomy, biochemistry, zoological cytology, pathology, physiology, specific morphology, microbiology, experimental biology, experimental psychology, serology, vitalism, Mendelism, and systematic natural philosophy apart from vertebrate zoology. The Compiler knows that all these subjects interest (or should interest) the student but he has at his disposal neither the time nor the space required for more than a partial catalogue and review of their extensive literature.

Although the Introduction and Index of the present volume deal exclusively with the literature of vertebrate zoology, many of the titles herein do not appear to relate to that study. However, it must be remembered that many works apparently covering only botanical, geological, or invertebrate zoological subjects discuss also important topics connected with studies of interest to the investigator in vertebrate zoology.

Following the scheme adopted by the *Cat. Br. Mus.* (*Nat. Hist.*) the word (Wanting) is appended to titles not for the moment in any of the McGill libraries. At the same time it is understood that the items thus indicated are 'on order' and some of them may have, meantime, been acquired by and are actually in one of the collections.

As new treatises, periodicals, &c. on vertebrates are constantly appearing and as unheralded old ones come frequently to light, it follows that many titles will be added to the McGill shelves of which no notice can be taken in the present compilation. In other words the Catalogue in hand is not a complete roster of *all* the vertebrate zoological titles at McGill. Conversely, there are quite a few titles of serials and periodicals introduced not only in the hope of securing them for the various libraries but to inform students and librarians of their existence and importance in a study of the literature of vertebrate zoology. It is the firm purpose of the McGill authorities to secure these (and others) when they appear in the market.

Titles in Arabic, Greek, Russian, Japanese, Chinese, Serbian, and other languages not employing Italian letters, if transliterated, generally follow the rules laid down by the Cataloguers of the British Museum.

It was the original purpose of the Compiler to append notes of evaluation at least to all important and most of the minor publications, but for many reasons this praiseworthy plan had

to be abandoned. However, it is believed that the annotations provided will furnish the student and librarian with a fair idea of the value of the great majority of fundamental treatises.

With the exceptions already noted the (estimated) 20,000 bound and unbound pamphlets, excerpts, separates, reprints, exfoliates, and collections of newspaper and magazine clippings on subjects relating to vertebrate zoology in the McGill libraries, although entered in the card catalogues of the University, are not recorded or evaluated here. Many of these titles may be important contributions to zoological literature—much more important than some of the separately bound volumes—yet there is in the appended list no place for them.

Generally the form and order observed by the authors of the *British Museum* (*Nat. Hist.*) *Catalogue* are followed, but almost as frequently the title-sequences of the Library of Congress are adopted ; there seem to the Compiler to be merit and advantage in both schemes.

When the symbol [O.] occurs it indicates a title in the Osler Library, and that a more complete description of it will be found in the *Bibliotheca Osleriana*. [G.] indicates that it is in the Gest Library of Chinese Literature; the letters [W. I.] indicate that the preceding notes were contributed by Mr. Wladimir Ivanow, formerly assistant curator of Persian Manuscripts at the Imperial Library in St. Petersburg.

The series of asterisks **** that act as substitutes for the name of an author, a country or a magazine, refers to the *first name* of the previous heading.

The Compiler is anxious to repeat that only independent publications are, as a rule, entered in this Catalogue. Separates or reprints of, or excerpts from parts or single volumes of published works (especially from Government, institutional, and Zoological Society journals and serials) are excluded unless they are copies of specially reprinted parts (or 'Authors' editions') and listed as such in a McGill Library card index, and are actually on hand or on order for delivery in the near future.

Of course this rule excludes the listing and notices of much meritorious literature but, unfortunately, lack of space prohibits annotation in this work of many a valuable contribution to the literature of vertebrate zoology.

CATALOGUE OF TITLES IN McGILL UNIVERSITY LIBRARIES

AARAU. Aargauischen Naturforsch. Gesellschaft.
1878–*date.* Mittheilungen. Vols. 1–17.
A fair example of a German periodical devoted to local zoology.

AARBOG, Bergens Museum. *See* BERGENS MUSEUM.

Aargauische Naturforschende Gesellschaft. *See* AARAU.
1863–*date.* Mittheilungen.

AARSBERETNIGAR OM DANSKE FUGLE. *See* JAHRESBERICHT ÜBER DIE ORNITHOLOGISCHEN BEOBACHTUNGSSTATIONEN IN DÄNEMARK.

AARSBERETNING, Bergens Museum. *See* BERGENS MUSEUM.

Abbildung und Beschreibung Naturhistorischer Gegenstände. 1795–1802. (Wanting.) *Berlin.*

ABBOTT, CHARLES CONRAD [1843–1911].
1868. Catalogue of Vertebrate Animals of New Jersey. (Cook's Geology of New Jersey.) *8vo.*
One of the numerous local lists of American fauna; valuable for reference.

1884. A naturalist's rambles about home. *8vo. pp. 485. T. of c. append. index. New York.*
These notes—the gatherings of many years—and some of which had already appeared in various magazines—were made by the author whilst residing on the Delaware river near Trenton, N.J. The bird notes are confined to Chapters XII–XXVII, pp. 93–241, whilst the appendix contains a list of the birds to be found in Mercer County, New Jersey, pp. 451–75. A second revised edition appeared in 1887 (q.v.).

1887. A naturalist's rambles about home. 2nd ed. rev. *12mo. pp. (2)+485. T. of c. append. index. New York.*
A slight revision of the first edition published in 1884 (q.v.), the changes referring more particularly to the mammals and reptiles, the author stating that he found little to amend in the ornithological Chapters XII–XXVII.

1890. Outings at odd times. *8vo. pp. x+282. T. of c. New York.*
In some of the above outings in New Jersey the author records his experience with Owls, Wrens, Snow-birds, Blue Jays, etc.

1894. Travels in a tree-top. *8vo. pp. 215. index. Phila.*
A series of popular essays on natural history based on the author's observations in the vicinity of Philadelphia, Pennsylvania.

1895. The birds about us. *8vo. pp. xi+(1)+9–288. front. 23 pl. 50 figs. (1 col.). T. of c. index. Phila.*
In the opening pages some of the more characteristic phases of bird-life in general are touched upon, followed by a popular account of the birds themselves as found in North America.

1895. Cyclopedia of Natural History. *illust.*
A brief account of the subject.

ABBOTT, CLINTON GILBERT [1881–].
1911. The home-life of the osprey. Photographed and described by Clinton G. Abbott . . . with some photographs by Howard H. Cleaves. With thirty-two mounted plates. *Sup. 8vo. pp. 54+(2). 32 pl. London.*
A detailed account of periodical observations at various nests of the Osprey situated at Atlantic Highlands, New Jersey, Gardiner's Island, N.Y., and elsewhere, illustrated with beautiful photographs. The work forms one of *The Bird-Lover's Home-Life Series.*

1919. Home-life of the Osprey. *4to. pp. 50. 32 photo plates. N.Y.*
Another edition.

ABBOTT, FRANCES MATILDA [1857–].
1906. Birds and flowers about Concord, New Hampshire. *12mo. pp. xxi+(3)+140+(1). T. of c. index. Concord, N.H.*
An endeavor to bring before other people, especially children, the joy that comes from knowing the common things around us. The birds are dealt with on pages 1–58, followed by a list of those seen by the author about Concord (110), and those seen by other observers (91), pp. 59–74.

ABEL, OTHENIO [1875–].
1919. Die Stämme der Wirbelthiere. (Wanting.)
A fundamental source of information on the origin and chief characters of vertebrates. A complete account of the amphibia will be found here.

1922. Lebensbilder aus der Vorzeit. *Jena.*

1926. Amerikafahrt. *Jena.*

ABHANDLUNGEN AUS D. GEBIETE DER VOGELZUGFORSCHUNG. *See* No. 1. WEIGOLD, H. No. 2. DROST, R. HELGOLAND.

ABHANDLUNGEN AUS DER NATURGESCHICHTE, PRAKTISCHEN ARZNEYKUNST . . . UND ANDERER HOLLÄNDISCHEN GESELLSCHAFTEN. 1775–6. *Leipzig.*

ABHANDLUNGEN AUS DER NATURLEHRE, HAUSHALTUNGKUNST UND MECHANIK. (*K. Svenska veten, Stockholm.*) *Hamburg.*
1739–79. Continued as Neue Abhandlungen . . . mechanik.

ABHANDLUNGEN DER BAMBERG. NATURFORSCH. GESELLSCHAFT.
1924–*date.*

ABHANDLUNGEN DER BREMEN. NATURWISSENSCHAFTL. VEREIN. *See* BREMEN.

ABHANDLUNGEN D. CHEMNITZ. NATURWISSENCHAFT. GESELLSCHAFT. *See* CHEMNITZ.

ABHANDLUNGEN D. KLG. ZOOLOG. . . . MUSEUMS ZU DRESDEN. *See* DRESDEN.

ABHANDLUNGEN D. MUSEUM FÜR TIERKUNDE UND VÖLKERKUNDE ZU DRESDEN. *See* DRESDEN.

ABHANDLUNGEN D. NATURFORSCHENDE GESELLSCHAFT ZU GÖRLITZ. *See* GÖRLITZ.

ABHANDLUNGEN ZUR NATURGESCHICHTE, PHYSIK UND OEKONOMIE. 1779–80. *Leipzig.*

ABHANDLUNGEN ZUR THEORETISCHEN BIOLOGIE. 1919–*date. Berlin.*

ABHANDLUNGEN D. ZOOLOGISCH. GESELLSCHAFT. WIEN.
1901–25. (All pub.) Vols. 1–15, pt. 1.

ABHANDLUNGEN UND BERICHTE D. KGL. ZOOLOG. . . . MUSEUMS ZU DRESDEN. Hg. A. B. Meyer. *See also* DRESDEN.
1889–1903. Vols. 7–10.

ABHANDLUNGEN UND BERICHTE D. POMMERSCH. NATURFORSCH. GESELLSCHAFT. *See also* STETTIN.
1919–*date.* Parts 1–9, 1 and 2.

ABHANDLUNGEN UND VERSUCHE D. DANZIG. NATURFORSCH. GESELLSCHAFT. *See* DANZIG.

ABHANDLUNGEN UND VORTRÄGE AUS DEN GEBIETE DER MATHEMATIK, NATURWISSENSCHAFT UND TECHNIK.
1916–*date.* (Wanting.) *Leipzig.*

ABHANDLUNGEN UND VORTRÄGE AUS DEM GESAMMTGEBIETE DER NATURWISSENSCHAFTEN. **1887–1897?** *Berlin.*

ABID B. HUSAYN ANSARI.
1870. On the lawfulness of the flesh of different animals for food. In Hindustani. *4to. pp. 16. lithograph.* *Lucknow.*

ABILDGAARD, P. C. *See* MÜLLER, O. F., 1788–1806.

ABSTRACT OF THE PROCEEDINGS OF THE DELAWARE VALLEY ORNITHOLOGICAL CLUB. **1890–1900.** Continued as Cassinia. *Phila.*

ABŪ BAKR IBN AL-MUẒHIR. . . . AL JAMAL AL-YAZDI.
1493. Farah- (or Farrukh) nama-i-Jamali.

The reviewer of this title is the well-known authority on Persian MSS., Wladimir Ivanow, formerly attached to the Imperial Library in St. Petersburg, now an official of the Asiatic Society of Bengal at Calcutta. Until recently only one copy of this work was known. It is in the British Museum but is incomplete towards the end. C. Rieu, (*Catalogue of the B.M. Persian Manuscripts*) describes it in vol. II, pp. 465–6. A Vienna MS. (No. 1449 in Flügel's Catalogue) contains some extracts from the work.

'Dr. Casey Wood, of Stanford University, while in Kashmir, acquired another copy of this rare treatise bound in one volume with an early copy of the famous Nuzhat-nāma-i-'Ala'i and part of another work in the same style and on the same subject. Both this fragmentary monograph and the Farah-nāma were intended to supplement the earlier Nuzhat-nāma.'

'The transcript of the Farah-nāma contains not only the two last chapters, missing in the British Museum copy, but it furnishes interesting variants of the latter especially as to the date and place of composition. In catalogues both works are classed as encyclopedias of useful or natural history sciences, but they are something more and treat of many beliefs—especially superstitions—connected with both organic life and inorganic matter. It is particularly noticeable that the text of all the documents breathe a spirit free of all the bonds of Muhammadan orthodoxy. For example, the book gives detailed directions as to how the figures of planets and the deities they represent should be drawn—operations specifically forbidden by the Korān.'

The diction of the Farah-nāma is very simple and unpretentious and, of course, not quite so archaic as that of the 100-year older Nuzhat-nāma. For further information relating to the remarkable MS. see under *Nuzhat-nāma.*

The present copy gives the date of the original composition (written when the author was only 20 years old) as A.H. 597 or A.D. 1201, while Rieu quotes it as A.H. 587 or A.D. 1184. It was composed at the village of Mālih in the province of Iṣṭakhr.

ABU BAKR IBN BADR (14th cent.).
1852–60. Le Nâcérî. . . . Traité complet d'Hippologie . . . des Arabes. Traduit par M. Perron. *3 vols. 8vo. 2 pls. illust.* *Paris.*

Written by a veterinary surgeon to Al-Nācer, the most brilliant of the Arabian-Egyptian rulers (1294–1341). This book records the hippic science of the Arabs at its best period. [O.]

ACADEMIA CAESAREA LEOPOLDINO CAROLINA. . . . *See also* LEOPOLDINISCH, etc.
1871–1921.

ACADEMIA CAESAREA LEOPOLDINO-CAROLINA GERMANICA CURIOSORUM.

1652. Founded as Academia Naturae Curiosorum. (Akademie der Naturforscher.)
1687. Academia Imperialis Leopoldina Naturae Curiosorum. (Kaiserliche Leopoldinische Akademie der Naturforscher.)
1694? Academia Caesareo-Leopoldina Naturae Curiosorum.
1712. Academia Caesareo-Leopoldina Carolina Naturae Curiosorum.
1727. Academia Caesarea Leopoldino-Carolina Naturae Curiosorum. (Kaiserliche Leopoldinisch-Carolinische Akademie der Naturforscher.)
1748. Academia Caesarea Leopoldino-Franciscana Naturae Curiosorum.
1752. Reverted to title of 1727.
1859. Academia Caesarea Leopoldino-Carolina Germanica Naturae Curiosorum. (Kaiserliche Leopoldino-Carolinische Deutsche Akademie der Naturforscher.)
1670–7. Miscellanea curiosa medico-physica, etc. Ann. I–VII. *4to.* *Lipsiae,* etc.
1678–80. Miscellanea curiosa, sive Ephemeridum medico-physicarum, etc. Ann. VIII–X. *4to.* *Vratislaviae* and *Bregae.* Ann. I–X, forming 6 vols. bound in 4.
1683–92. —— Decuriae II, Ann. I–X. (In 5 vols.) *4to.* *Norimbergae.*
1695. —— Index generalis . . . Dec. I and II, etc. *4to.* *Norimbergae.*
1694–1706. —— Decuriae III, Ann. I–X. (7 vols. in 4.) *4to.* *Lipsiae* and *Francofurti.*
1713. —— Index generalis . . . Decuriae tertiae, etc. *4to.* *Francofurti ad Moenum.*
1712–22. Academiae . . . Ephemerides, etc. Centuria I–X. (5 vols. in 3.) *4to.* *Francofurti* and *Lipsiae,* etc.
1739. —— Index . . . rerum . . . quae in Decuriis III ac Centuriis X. Ephemeridum Academiae . . . extant, adjuncta Sylloge alphabetica auctorum, etc. *4to.* *Norimbergae.*
1727–54. Acta physico-medica, etc. Vols. I–X (in 5).
1757–1913. Nova Acta (Verhandlungen), etc. *4to.* *Norimbergae.* Acta Nova. Reportorium. 2 vols.

ACAD. CAESAR.-LEOPOLD NAT. CUR. *See* LEOPOLDINISCH-CAROLINISCHE DEUT. AKAD. D. NATURFORSCHER.

(R.) ACADEMIA DE CIENCIAS EXACTAS, FISICAS Y NATURALES DE MADRID.
1857–*date.* Anuario.
1850–1925. Memorias. Series 1.
1921–*date.* Memorias. ,, 2.
1847–63. Resumen de las actas.
1904–*date.* Revista.

ACADEMIA DE CIENCIAS EXACTAS, FISICO-QUIMICAS Y NATURALES DE ZARAGOZA.
1916–*date.* Revista.

ACADEMIA DE CIENCIAS MÉDICAS, FÍSICAS, Y NATURALES DE LA HABANA.
1869–*date.* Anales.

(R.) ACADEMIA DE CIENCIAS NATURALES Y ARTES DE BARCELONA.
1883–5. Actas.
1840–2. Boletín. I epoca.
1876–*date.* Memorias.

ACADEMIA MEXICANA DE CIENCIAS EXACTAS, FISICAS Y NATURALES.
1895–9. Anuario.
1903–*date.* Anales.
1876–1910. Memorias.

ACADEMIA NACIONAL DE CIENCIAS EXACTAS, CORDOBA, ARGENTINE REPUBLIC. *Buenos Ayres.*
1875–89. Actas. Vols. 1–6.
1921–*date.* Actas. Vols. 7– .
1874–*date.* Boletín.
1920–*date.* Miscelánea.

ACADEMIA DAS SCIENCIAS DE LISBÕA.
1899/1904–*date.* Actas.
1857–8. Annaes.
1854–*date.* Memorias.
1866–88. Jornal. Series 1.
1889–1910. Jornal. ,, 2.
1917–*date.* Jornal. ,, 3.

ACADÉMIE IMPÉRIALE DES SCIENCES DE ST. PETERSBURG. *See* AKADEMIIA NAUK, LENINGRAD.

ACADÉMIE DE METZ.
1819–52. Mémoires. Series 1. (Wanting.)
1852–71. Mémoires. Series 2.
1871–1914. Mémoires. Series 3.
1914–*date.* Mémoires. Series 4.

ACADÉMIE ROYALE DES SCIENCES, DES LETTRES ET DES BEAUX-ARTS DE BELGIQUE. *Brussels.*
1835–*date.* Annuaire.
1832–56. Bulletins. Series 1.
1857–80. Bulletins. ,, 2.
1881–98. Bulletins. ,, 3.
1899–*date.* Bulletins. (Suspended 1915–18.)
1840–1904. Mémoires couronnés.
1769–88. Mémoires. Series 1.
1820–1904. Mémoires. Series 2.
1904–*date.* Mémoires—classe des sciences.

ACADÉMIE DES SCIENCES, BELLES-LETTRES ET ARTS. *Lyons.*
1845–6. Mémoires. Series 1.
1851–92. Mémoires. Series 2.
1893–*date.* Mémoires. Series 3.

ACADÉMIE DES SCIENCES DE CRACOVIE. *See* AKADEMIJA UMIĘJETNOŠCI, KRAKOW.

ACADÉMIE DES SCIENCES. *Paris.*
See INSTITUT DE FRANCE, PARIS.

ACADÉMIE DES SCIENCES DE L'INSTITUT DE FRANCE.
1901–22. Mémoires. Series IV, vols. 7–12: Ser. V, vols. 1, 2, 3, pt. 1–9, and Jan. 1922. *Paris.*

ACADÉMIE DES SCIENCES, PARIS.
1924–5. Inventaire des périodiques scientifiques des bibliothèques de Paris. 4 pt. By A. Lacroix and others. *Paris.*
See also INSTITUT DE FRANCE.

ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA.
1817–42. Journal. Series 1.
1847–1918. Journal. Series 2.
1841–*date.* Proceedings.
1824–8. Report of Transactions.
1921–3. Annual Report. Earlier reports in Proceedings.
1922–*date.* Special publications.
1923–*date.* Year-book.
Biological and microscopical section.
1922–*date.* Contributions.
1853. Catalogue of the öological collection.
See HEERMANN, A. L.

ACADEMY OF SCIENCES, PASADENA, CALIFORNIA.
1897–8. Publications I–III.

ACADEMY OF SCIENCE OF ST. LOUIS.
1856/60–*date.* Transactions (includes Proceedings).

ACCADEMIA DEGLI ASPIRANTI NATURALISTI, NAPLES.
1843–6. Annali. Series 1.
1847. Annali. Series 2.
1861–6. Annali. Series 3.
1867. Annali. Series 4.
1868–9. Annali. Second era.
1887–*date.* Annali. Third era.

(R.) ACCADEMIA DEI FISIOCRITICI. *Siena.*
1760–1841. Atti. Series 1.
1862–70. Atti. Series 2.
1873–85. Atti. ,, 3.
1889–1908. Atti. Series 4.
1909–*date.* Atti. Series 5.
1883–8. Bollettino.
1894–*date.* Processi Verbali delle Adunanze.
1877–81. Rapporti e Processi Verbali.
1869–72. Revista Scientifica.

(R.) ACCADEMIA DEI LINCEI, ROME.
1870–3. Atti. Series 1.
1873–6. Atti. ,, 2.
1876–84. Memorie. Series 3.
1884–90. Memorie. ,, 4.
1884–91. Rendiconti.
1892–1924. Rendiconti. Series 5.
1925–*date.* Rendiconti. ,, 6.
1876–84. Transunti.

ACCADEMIA SCIENTIFICA VENETO-TRENTINO-ISTRIANA, PADUA.
1872–*date.* Atti.

(R.) ACCADEMIA DELLE SCIENZE DELL'INSTITUTO DI BOLOGNA.
1850–1907. Memorie. Continued as Memor. delle Classe di Scienze fisiche, **1908**–*date. Index,* **1850–79.**

ACCADEMIA DELLE SCIENZE DI SIENA.
See also ATTI, etc.
1761–4. Vols. I–V.

(R.) ACCADEMIA DELLA SCIENZE DI TORINO.
1865–*date.* Atti.
1759–1838. Memorie. Series 1.
1839–*date.* Memorie. ,, 2. (Wanting.)

ACCLIMATISATION AND ORNITHOLOGICAL SOCIETY OF LONDON.
1860–8. Annual report. *Lond.*
1–5 (1860–4) title reads: Annual report of the Society for the Acclimatisation of Animals, Birds, Fishes, Insects, and Vegetables, within the United Kingdom.
In 1865 united with the Ornithological Society of London.

ACCLIMATISATION SOCIETY OF GREAT BRITAIN, IRELAND AND THE COLONIES. *See* ACCLIMATISATION AND ORNITHOLOGICAL SOCIETY OF LONDON.

ACKERMANN, KARL [1841–1913].
1898. Thierbastarde. Theile I und II. *8vo. Kassel.*
One of the few works on hybridization of animals.

ACLOGUE, ALEXANDRE [1871–].
1895–1900. Faune de France &c. *4 vols. 8vo. illust. Paris.*
A scientific treatise. All the indigenous vertebrates are systematically described in vol. I, pp. 7+548, text figures, and in vol. IV. Several of the above volumes have also been separately published.

1900. Faune de France, contenant la description des espèces indigènes. Vol. I. *12mo. illust. Paris.* CONTENTS, vol. 1. Mammifères, oiseaux, poissons, reptiles, batraciens, protochordes.

ACOSTA, JOSEPH DE [1539–1600].
1590. Historia natvral y moral de las Indias, en qve se tratan las cosas notables del cielo, y elementos, metales, plantas, y animales dellas: y los ritos, y ceremonias, leyes, y gouierno, y guerras de los Indios. *21 cm. pp. 535+(36).* Books 1–2 appeared originally in Latin under title 'De natura Novi orbis libri duo', 1588–9.
The library copies of this famous work on the natural history of the West and East Indies are in several languages—including English. It is one of the earliest and fundamental American treatises on natural history.

1598. Histoire Naturelle—traduite en François &c. *8vo.* (*Marc Orry pub.*) *Paris.*
A French translation.

1598. Historie Naturael ende Morael van de Westersche Indien. Black Letter Dutch.
A Dutch edition of this justly celebrated work.

1604. The Naturall and Morall Historie of the East and West Indies.
First English Edition.

1608. Historia Natural y moral de las indias &c. *4to. Madrid.*
A comparatively late Spanish edition.

ACTA NOVA D. ACADEMIA CAES. LEOPOLD-CAROL. GERMAN NATURAE CURIOS. *See* ACADEMIA CAES., etc.

ACTAS D. (R.) ACADEMIA DE CIENCIAS Y ARTES DE BARCELONA. *See* (R.) ACADEMIA DE CIENCIAS . . . BARCELONA.
1840–2. 1 epoca.

ACTA SOCIETATIS PRO FAUNA ET FLORA FENNICA. *See* HELSINGFORS. SOCIETAS PRO FAUNA ET FLORA.

ACTAS. CLASSE DE SCIENCIAS MATH., PHYSICAS E NATURAES. *See* ACADEMIA DAS SCIENCIAS DE LISBÕA.

ACTA UNIVERSITATIS LUNDENSIS.
1869–71. Section Mathem. and Nat. Sc.
1905–11. New Series. Vols. 1–7.

ACTA ZOOLOGICA FENNICA.
Vols. 1–3. *Helsingfors.*

ACTA ZOOLOGICA. INTERN. TIDSKRIFT ETC. STOCKHOLM.
1920–*date.* Vols. I– .

ACTES DE LA SOCIÉTÉ HELVÉTIQUE DES SCIENCES NATURELLES. *See* ALLGEMEINE SCHWEIZERISCHE GESELLSCHAFT FUER DIE GESAMMTEN NATURWISSENSCHAFTEN.

ACTES DE LA SOCIÉTÉ LINÉENNE DE BORDEAUX. *See* BORDEAUX.
This periodical is a type of the Transactions of numerous Linnean Societies published throughout France, Germany, Great Britain and America.

ADAM, VICTOR.
1844. Museo del caccialiatori o collezione di tutte le specie di selvaggina di pelo o di piuma che si cacciano coll'archibugio, etc. Prima traduzione Italiana. *4to. 72 pl. index. Venezia.*
This rare treatise on sport, in which game animals are described by an unknown 'cacciatore naturalista', is profusely but poorly illustrated. However, it gives a fairly good, semi-popular description of the animals hunted. Adam, the French illustrator, was really a fine artist. The present title is of the first Italian translation.

1852. *See* BUFFON, G. L. L. Histoire naturelle, &c. Illustré . . . de 150 dessins de Victor Adam.

ADAMS, ANDREW LEITH [1826–82].

1867. Wanderings of a naturalist in India, the western Himalayas, and Cashmere. *8vo. pp. xi+(1)+333. front. T. of c. index. Edinburgh.*

An interesting account of the author's seven years' sojourn in the East—with frequent change of place—he being a surgeon in the army. References to birds are very numerous and occur throughout the volume.

1870. Notes of a naturalist in the Nile Valley and Malta, a narrative of exploration and research in connection with the natural history, geology, and archaeology of the lower Nile and Maltese Islands. *8vo. pp. xvi+295. front. 10+(3) pl. map (col.) T. of c. Index. Edinburgh.*

1873. Field and forest rambles, with notes and observations on the natural history of eastern Canada. *8vo. pp. xvi+333. front. vignette. 25 figs. 4 maps (1 col. fold.). T. of c. append. index. London.*

Field studies made principally in New Brunswick during three years' sojourn 1866–8. References to birds are very numerous, pp. 117–98, 285–94, with a list of the birds of New Brunswick in the appendix, pp. 296–302.

ADAMS, ARTHUR [1820–78], *ed.*

1848–50. The zoology of the voyage of H.M.S. Samarang; under the command of Captain Sir Edward Belcher . . . during the years 1843–1846. Pub. under the authority of the lords commissioners of the Admiralty. *pp. xv+(250). 55 pl. (35 col.) 31½ cm. London.*

This famous Voyage added much to our knowledge of vertebrates (that were described by J. E. Gray), the fishes being reported upon by Sir J. Richardson.

See also SAMARANG.

1870. Travels of a naturalist in Japan and Manchuria. *8vo. pp. x+334. front. (ports.). 1 fig. T. of c. London.*

An interesting account of the author's visits to various places in Japan and Manchuria, whilst acting as staff-surgeon on board H.M.S. 'Actæon'. References to birds met with both on sea and land occur in almost all of the twenty-two chapters into which the book is divided.

ADAMS, CHARLES CHRISTOPHER [1873–].

1913. Guide to the study of animal ecology. *pp. 12+184. pl. New York.*

ADAMS, H. B. and **ADAMS,** H. G. *See* ADAMS, H. G.

1874. The smaller British birds, &c.

ADAMS, H. DAVONPORT. The Bird. *See* ADAMS, W. H. D.

ADAMS, HENRY GARDINER [1811–81].

1851. Favorite song birds; containing a popular description of the feathered songsters of Britain; with an account of their habits, haunts, and characteristic traits. Interspersed with choice passages from the poets and quotations from eminent naturalists. *12 col. ill. on stone, by Edward Gilks. 16mo. pp. xii+196. front. (col.). T. of c. index. London.*

An endeavor by the author to set before his readers a series of pictures of the most esteemed of the British Song Birds, with an account of their habits, and distinguishing traits, as he was able to gather from the best and most recent authorities on the subject.

1853. Cage and chamber-birds; . . . Tr. from the German of J. M. Bechstein. With considerable additions on structure, migration, and economy, comp. from various sources. Incorporating the whole of Sweet's British Warblers. *See* BECHSTEIN, J. M.

1854. Nests and eggs of familiar British birds, described and illustrated; with an account of the haunts and habits of the feathered architects, and their times and modes of building. With eight coloured plates of eggs, containing forty-eight different species. *8vo. pp. iv+78+(1). front. (col.). 7 pl. (col.). index. London.*

A little book intended for young readers, the title sufficiently explaining its scope.

[**1856.**] Humming birds, described and illustrated. *8vo. pp. (4)+144. front. (col.). 7 pl. (col.). 7 figs. Index. London.*

A general, popular account of the homes and haunts, habits, nests, voice, and scientific arrangement and names of the *Trochilidæ*. Following this is a more detailed account of the sixteen species figured in the colored illustrations.

[**1862**]. Our feathered families, the birds of prey; being an anecdotal and descriptive account of the rapacious birds of Britain. With a chapter on Ancient and Modern Hawking. With about fifty illustrations by F. W. Keyl, Harvey, and others. *12mo. pp. 320. front. 52 figs. T. of c. Index. London.*

This forms the second of three volumes of descriptive sketches of the Feathered Families of Britain. Volume I contained the Song Birds and their Congeners [1862], and vol. III, the Game and Water Birds [1863]. There was a new edition of the present volume in 1868, and a reissue of the three volumes in [1879]. Chapter XV, pp. 297–316, contains the account of ancient and modern hawking, whilst the frontispiece depicts a modern hawking party.

[**1862**]. The wild flowers, birds, and insects of the months, popularly and poetically described, with numerous anecdotes. *pp. vi+7–316. front. 2 pl. 47 figs. append. index. London.*

1871. Nests and eggs of familiar birds. Described and Illustrated. *London.*

1874. The smaller British birds. With descriptions of their nests, eggs, habits, &c. *8vo. pp. iv+252. front. (col.). 32 pl. (col.). T. of c. London.*

A popular account of the habits of the smaller British birds, written in collaboration with H. B. Adams. Another edition was issued in 1894.

1890. Nests and Eggs of Familiar Birds. *London.*

ADAMS, WILLIAM HENRY DAVENPORT [1828–91], and **GIACOMELLI,** H.

1878. The bird world described with pen and pencil. *xii+(13)–464 pp. T. of c. Numerous full-page plates. London.*

The text of this attractive volume is by Adams; the illustrations by Giacomelli. According to the author, the object of the chapters is to gossip pleasantly about birds distinguished by the possession of some special character—introducing, where appropriate, the descriptions of travellers, or the fancies of poets, or the association of history and romance. There are several editions of this well-known volume. *See also* MICHELET, JULES, 1869.

1885. The Bird World, &c. *8vo. ed. altera. London.*

ADAMSON, CHARLES MURRAY [ob. 1894].

1879. Sundry natural history scraps, more especially about birds. *2 vols. 8vo. Newcastle-upon-Tyne.*

Interesting excerpts from *The Field*, with fresh title-page and cover. The present copy is from the Mullens library.

[**ADAMSON,** C. M. (contd.)]

1880. Some more scraps about birds. *8vo. pp. 8+273. T. of c. pl. 43.* *Newcastle-upon-Tyne.*

Charming notes about various British birds, from personal observations. Rather a scarce book as only a limited edition was printed 'many of which have been promised to my friends'.

1881. Studies of birds. *obl. 8vo. pp. (4). front. (photo.). 40 pl. 1 fig. (vignette).* *Newcastle-upon-Tyne.*

Comprises the plates from the author's previous work, *Some More Scraps about Birds*, 1880–1, the legends being in pencil. This copy has the original covers, and is one of the artistic scrap-books of this author.

1882. Another book of scraps, principally relating to natural history, with thirty-six lithograph illus. from pen and ink sketches of wild birds. *8vo. pp. (4)+56+36.* *Newcastle-upon-Tyne.*

Another of this ornithologist's delightful, privately printed 'Scrap Books', illustrated by his own drawings.

1887. Some more Illustrations of wild birds, showing their Natural Habits. *oblong roy. 8vo. pp. 3+24. 24 col. pl. Only 200 copies printed. introd. and index.* *London.*

One of the several attractive 'Scrap-books' arranged by this well-known ornithologist.

ADANSON, MICHEL [1727–1806].

1757. Histoire Naturelle du Sénégal. Avec la relation abrégée d'un Voyage fait en ce pays, pendant . . . 1749–53. *4to. pp. (viii), 190; xcvi, 275. 19 pls. 1 map.* *Paris.*

AD-DAMIRI, ABUL-BAKA MUHAMMAD B. MUSA [born 1349 A.D.].

1906–8. Hayat al-Hayawan (A Zoological Lexicon). Translated from the Arabic by A. S. G. Jayakar. Vols. I and II, part 1 (all pub.). *pp. xxx+1–875 and 1–604. indexes to both vols.* *London and Bombay.*

The complete work in Arabic, of which this is an English translation of an important portion, constitutes one of several extensive encyclopedias of natural history originally written in one of the Islamic languages. Although much of the matter in this compendium —a large percentage about birds, with their Arabic names—is borrowed from others, not a little from Pliny and Aristotle, and much more drawn from the oriental imagination of the writer, yet, considering his medieval surroundings, the treatise is well worthy a place in the library of the advanced student of natural history. The McGill libraries have several MS. and printed variants of this well-known cyclopedia.

ADOLF FRIEDRICH GEORG, *Duke of* Mecklenburg [1882–].

1910–*date.* Wissenschaftliche Ergebnisse der Deutschen Zentral-Afrika-Expedition, 1907–8. *8vo.* 7 vols to 1914. (Wanting.) *Leipzig.*

Although important from other natural history viewpoints this voluminous report (so far as made) says very little about vertebrate zoology. Vol. IV (1912) gives a description by F. Nieden of the amphibia and R. Sternfeld of the reptiles.

ADOUIN, J. V. Description de l'Égypte. *See* SAVIGNY, MARIE JULES-CÉSAR LELORGNE DE.

******** and **GEOFFROY SAINT HILAIRE,** É.

1812. Description des Mammifères qui se trouvent en Égypte. *4to. editio princeps.* *Paris.*

Originally part (Tome II) of that famous *Description d'Égypte* ordered by Napoleon I. A second and inferior edition appeared in 1828.

ADVOCATE OF SCIENCE, AND ANNALS OF NATURAL HISTORY.

1834–5. (Wanting.)

AELIANUS, CLAUDIUS (fl. ca. 140 A.D.).

[1556.] Claudii Aeliani praenestini pontificis et . . . Opera quae extant omnia, graece latineque e regione edita, . . . partim multo quam antehac emendatiora in utraque lingua, cura et opera Conradi Gesneri, Tiguri, apud Gesneros fratres. [Printer's device; also the same on last page.] *folio. First line of title-page in Greek. n.d. pp. 24 ff.+658. T. of c. and index.*

A fine, bilingual and complete edition of the works of this writer. The first section, latinized as *De animalium natura libri XVII*, has been translated and annotated by the naturalists, Peter Gillius (Gallus) and Conrad Gesneri (Helvetius) from the best Greek codices. Charming initials, clear print, and the usual account of such birds as the swan, the goose, eagle, &c., not to mention much legendary avian life adopted from Aristotle and others. There are many marginal notes in both Greek and Latin by the hands of previous owners.

1562. Aeliani de historia animalium libri XVII. Quos ex integro ac veteri exemplari Graeco, Petrus Gillius vertit. Vna cum elephantorum descriptione. Item Demetrii de Cura accipitrum, et de Cura et medicina canum, eodem Petro Gillio interprete. *12mo. pp. 668+(index) 118.* *Lugduni.*

One of the numerous editions of Aelianus' book on Natural history (originally in Greek) that, translated into several languages and published separately, have been printed since the *editio princeps* appeared in the beginning of the sixteenth century. The present copy is largely devoted to birds. It is a rare item, not mentioned by Brunet. Three titles are added, one on the Elephant, one on Dogs, and the third on Falconry.

1565. De historia animalium libri XVII. *pp. 16+668+38.* *Lugduni.*

The well-known treatise on animals by Aelianus translated by Petrus Gillius, to which is added a new description of certain elephants; also an essay on the care of hawks and dogs by Demetrius through the same translator.

1616. De Animal. natura. Lib. XVII. *Geneva.*

1744. Ἀιλιανου περι ζωων ἰδιοτητος βιβλια ΙΖ. Aeliani de Natura Animalium Libri XVII. Cum animadversionibus C. Gesneri et D. W. Trilleri: curante A. Gronovio, etc. *4to. 2 pt. pp. 14+27+1128+88. Greek and Latin.* *London.*

1772. Histoires diverses d'Élien, traduites du Grec, avec des remarques [by Bon. Joseph Dacier]. *sm. 8vo. pp. xii+520. preface, T. of c.*

In this French abbreviation of Aelianus, the author's natural history chapters are poorly represented, and the birds are almost neglected. There are several other editions of Aelianus in the library that furnish a complete account of the writer's zoology.

1784. Ἀιλιανου περι ζωων ἰδιοτητος βιβλια ΙΖ'. Aeliani de Natura Animalium Libri XVII . . . interpretum . . . J. G. Schneider. *2 vols. 8vo.* *Lipsiae.*

1832. Aeliani de Natura Animalium libri XVII. Volumen primum. Verba ad fidem librorum manuscriptorum constituit Fredericus Jacobs. Adjecti sunt indices rerum et interpretatio latina Gesneri à Gronovio emendata. *2 vols. small 8vo.* Vol. I, *pp. 465+254.* Vol. II, *pp. 700. indices.* *Jena.*

Vol. II. Volumen alterum. Annotationes scripsit Fridericus Jacobs. Adjecti sunt indices verborum cum addendis conjecturis ineditis Jo. Jac. Reiskii.

A useful edition of Aelianus' Animals, since it contains the original Greek text and the Latin translation by Gesner, as revised by Gronovius.

1858. French edition. *Paris.*

In library but for the moment inaccessible; this title is rare.

1864–6. German edition. *Leipzig.*

This rare copy is in the library but the full title is at the present time inaccessible.

AEMILIANUS, JOANNES.

1584. Naturalis de Ruminantibus historia Ioannis Aemyliani . . . vario doctrinae genere referta. *8vo. [20]+122 pp. Venetiis.*

In some respects an original, certainly a rare and quaint treatise on ruminants.

AFLALO, FREDERICK GEORGE [1870–1918].

1896. A sketch of the natural history of Australia with some notes on sport. (Macmillan's Colonial Library.) *8vo. pp. xxv+(3)+307. front. 30 figs. 1 map. T. of c. append. glossary. index. London.*

A sketch of the zoology of the Australian colonies, intended by the author as an introductory handbook. The birds are described on pp. 87–154, with 7 illustrations.

1898. A sketch of the natural history (vertebrates) of the British Islands; with a concise bibliography of popular works relating to the British fauna and a list of field clubs and natural history societies in the United Kingdom. *With illust. 8vo. pp. xiv+498. front. 3 pl. 70 figs. 1 map (fold). T. of c. appends. bibliogr. index. Edinburgh.*

In this volume some clue is given of the appearance and life-history of the 700 odd vertebrates, which either reside in, or visit the British Islands. The portion devoted to the birds will be found from pp. 97–296, with 36 illustrations, and a bibliography, pp. 449–57. A list of Natural History Societies and Field-Clubs is also given in Appendix II, pp. 460–7.

1904. British salt-water fishes; with a chapter on the artificial culture of sea fish by R. B. Marston. (Woburn library of natural history.) *4to. pp. 12+328. London.*

AFRICA ITALIANA (Soc. afric. d'Italia).

1882–*date.* Bollettino.

AGASSIZ, ALEXANDER EMMANUEL RUDOLPH [1835–1910].

1888. A contribution to American thalassography. Three cruises of the United States Coast and geodetic survey steamer 'Blake' in the Gulf of Mexico, in the Caribbean Sea, and along the Atlantic coast of the United States from 1877–1880. *2 vols. roy. 8vo.* Vol. I, *pp. xxii+314. front. 202 figs. (including maps). T. of c.* Vol. II, *pp. (4)+220. 383 figs. T. of c. index. London.*

In these two volumes references to birds are few and far between, the major portion of the work being devoted to a description of the various forms of life in the deep seas. In vol. I on pp. 114 and 120, however, we find references to the bird fauna of the West Indies, and to the effects of currents on the distribution of birds, and there are other short references to birds in the fauna of various places, such as the Tortugas Islands, etc. Text is identical with the Boston edition, also in the library.

AGASSIZ, ELIZABETH. *See* AGASSIZ, J. L. R. and AGASSIZ, ELIZABETH.

AGASSIZ, JEAN LOUIS RODOLPHE [1807–73].

1833–44. Recherches sur les poissons fossiles. *3 vols. and supplement. Neuchâtel.*

One of the earliest and most authoritative treatises, by this famous naturalist, especially valuable as a textbook on European fish fossils.

1839–42. Histoire naturelle des poissons d'eau douce de l'Europe centrale. *28 cm. pp. vi+326+[2]. 2 pl.* and *55 pl. (partly col.) in 3 portfolios. 32½×48½ cm. Neuchâtel.*

Plates of portfolios (except 'livr.' 2, pt. 2) interleaved with text in French, German, and English. The text, intended to form vol. 2, was issued in 1845 in vol. 3 of *Mémoires de la Société des sciences naturelles de Neuchâtel* under title: Anatomie des *Salmones*, par L. Agassiz & C. Vogt. It was accompanied by 18 plates, of which 14 are identical, except in size and quality of paper, with those of 'livr.' 2, pt. 2, of the present work.

CONTENTS.—t. 1. Embryologie des *Salmones* par C. Vogt. 1842.—Portfolios: [1.] livraison. Les espèces des genres *Salmo* et *Thymallus*. 1839. 2. livraison. [ptie. 1] L'embryologie des *Salmones*. 1842. 2. livraison [ptie. 2] L'anatomie des *Salmones*.

The first embryologist who studied development of fishes by artificial fertilization was Rusconi in 1836, although the method had been employed in industrial fishing in Germany at the end of the eighteenth century. Vogt was the second embryologist to employ the method of Rusconi. He lost thousands of eggs in his anxiety to protect them from the shock of the waves, until he found that they require to be kept in perpetual movement.

1842–6. Nomenclator zoologicus: continens nomina systematica generum animalium tam viventium quam fossilium, secundum ordinen alphabeticicum disposita, etc. *4to. Solodurni.*

This classic bibliography appeared in 26 fascicles constituting one volume, each part having a special title-page, pagination, and bibliography. It is a most valuable work of reference and forms a companion for the author's well-known *Nomenclatoris zoologici index universalis*, also published at Solothurn in 1846.

1846. Nomenclatoris zoologici index universalis. *pp. 8+393. Solodurni.*

A valuable contribution to the bibliography of zoology, companion of the author's *Nomenclator zoologicus* (q.v.). These well-known compilations have been reviewed by Prof. Asa Gray in the *American Journal of Science*, March 1847.

n.d. Nomina systematica generum avium tam viventium quam fossilium. (Nomenclator zoologicus, fasc. 2. Continens *Aves.*) *4to. pp. x+90. [Solodurni, Jent et Gassmann.]*

Lists the names, with bibliographical references, of all genera of birds to the year 1841.

1850. Lake Superior: its physical character, vegetation, and animals, compared with those of other and similar regions. With a narrative of the tour, by J. Elliot Cabot. And contributions by other scientific gentlemen. *illust. 8vo. pp. x+(2)+9–428. front. 16 pl. (1 map). T. of c. Boston.*

The main object of this excursion was a purely scientific one, viz. the study of the Natural History of the northern shore of Lake Superior. *Report* will be found in the second part of the volume, pp. 137–428, the *account* by J. E. Cabot of the birds collected and observed appearing on pp. 383–5, as well as other references in part 1, 'the Narrative', pp. 9–133.

1854. Sketch of the natural provinces of the animal world and their relation to the different types of man. *8vo. pp. 22. pl. map. illust. Philadelphia.*

Extracted fr. Nott and Gliddon's *Types of mankind.* Presentation copy to Prof. Eschricht from author, with autograph.

1857–77. Contributions to the Natural History of the United States of America. *5 vols. 4to. Boston.*

1857–62. Contributions to the natural history of the United States of America. By Louis Agassiz . . . Boston, Little, Brown and company; London. *4 vols. illust. 33 cm. 77 pl. (4 col., 2 fold.)*

The complete work was to include ten volumes, but only four were published. First monograph (vols. 1–2) in three parts; second monograph (vols. 3–4) in five parts.

[**AGASSIZ**, J. L. R. (contd.)]

CONTENTS.—vol. I. pt. I. Essay on classification. pt. II. North American *Testudinata*. 1857.—vol. II. pt. III Embryology of the turtle. 1857.—vol. III. pt. I. Acalephs in general. pt. II. *Ctenophoræ*. 1860.—vol. IV. pt. III. *Discophoræ*. pt. IV. *Hydroidæ*. pt. V. Homologies of the *Radiata*.

1859. An essay on classification. *8vo. pp. viii+381. index.* *London.*

The contents of this volume appeared for the first time as an introduction to a larger work now in course of publication, under the title of *Contributions to the Natural History of the United States.* The principal references to birds will be found under such headings as Birds, their standing, p. 40; their development, p. 125; Parasitic birds, p. 187; Birds as to their place and order in the principal systems of Zoology, pp. 285–370.

1866. The Structure of Animal Life. *8vo.* (Wanting.) *New York.*

**** and **STRICKLAND**, HUGH EDWIN.

1848–54. Bibliographia zoologiae et geologiae: a general catalogue of all books, tracts, and memoirs on zoology . . . corrected and enlarged, and edited by H. E. Strickland. Roy. Society. *4 vols.* *London.*

A classic, alphabetically arranged author catalogue which may be regarded as the forerunner of the *Catalogue of Scientific Papers* published by the Royal Society. It should find a place in every reference library on natural history.

**** and **GOULD**, AUGUSTUS A.

1848. Principles of zoölogy: touching the structure, development, distribution, and natural arrangement of the races of animals, living and extinct; with numerous illustrations. For the use of schools and colleges. Pt. I. Comparative physiology. *8vo. pp. (4)+xix+(1)+216. front. 1 map. 170 figs. T. of c. index.* *Boston.*

References to birds are general, and occur throughout the volume, under such headings as Special senses, sight, hearing, voice, &c.; Intelligence and Instinct; Motion (flying); Nutrition; Blood and Circulation; Embryology, &c., &c. Special references occur also to the extinct Dodo, nests of Baltimore Oriole and Tailor birds, and bird-tracks in red sandstone. Many of the illustrations also refer to the anatomy of birds.

1855. Principles of zoölogy. *pp. (2)+5–250. front. 1 map. 170 figs. T. of c. index.* *Boston.*

A revised and enlarged edition of the earlier issue of 1848. The illustrations are the same as in the previous edition, the revision and enlargement being in the main text only. Another issue appeared in 1856. The present copy contains the autograph of Sir J. W. Dawson.

1856. Principles of zoölogy. *pp. (2)+5–250. front. 1 map. 170 figs. T. of c. index.* *Boston.*

Apparently identical with the issue of 1855.

**** and **AGASSIZ**, ELIZABETH.

1886. A journey in Brazil. *8vo. pp. 20+540. Illust. pl. map.* *Boston.*

Valuable and interesting references to the flora and fauna of South America. The Library has also another edition, published in 1888.

1888. A Journey to Brazil. *Illust. Editio altera.* *Boston.*

**** and others.

1894. Naturgeschichte des Tierreichs. *Stuttgart.*

AGASSIZ, LOUIS. *See* BLANC, HENRI.

AGASSIZ ASSOCIATION. General Convention.

1890. Journal of Proceedings.

AGASSIZ BULLETIN.

1890–1. 7 nos. *Gilman, Ill.*

AGASSIZ COMPANION.

1886–8. 5 vols. (all pub.). *Wyandotte, Kas.*

AGASSIZ INSTITUTE. Proceedings.

1872–3. 2 vols. (all pub.). *Sacramento, Cal.*

AGASSIZ MUSEUM OF COMPARATIVE ZOOLOGY. *See* HARVARD UNIVERSITY: MUSEUM OF COMPARATIVE ZOOLOGY.

AGASSIZ RECORD.

1888. Nos. 1–6 (all pub.). *Oskaloosa, Iowa.*

AHLSTRÖM, A. M. *See* THUNBERG, C. P.

AIKEN, CHARLES E. H. and **WARREN**, E. R.

1914. The birds of El Paso County, Colorado. Pts. I–II in 1. *8vo.* Pt. I, *pp. 455–96. 8 pl. (15 figs.). 1 map. Bibliogr.* Pt. II, *pp. 497–603+(10). 16 pl. (30 figs.). Index.* *Colorado Springs.*

According to dated covers bound in at the end of this volume, part I was issued in May 1914 and part II in June–September 1914, being Colorado College Publication. General Series Nos. 74–6. Science Series, vol. xii, No. 13, I, pp. 455–96; II, pp. 497–603. No more published. The area covered by this list is the whole of El Paso County, while notes are given for points without the boundaries of the County, but adjacent thereto, especially that portion of the Pike's Peak Region in which are situated the Seven Lakes. Five life zones occur within the boundaries of El Paso County, Upper Sonoran, Transition, Canadian, Hudsonian, and Arctic-Alpine, the bird life in consequence being of a varied character, the number of species represented in the annotated list amounting to 276 species. A bibliography is included in part I, pp. 470–5.

AIKIN, ARTHUR [1773–1854].

1798. The natural history of the year; being an enlargement of Dr. Aikin's Calendar of nature. *cap. 8vo. pp. vi+(2)+195+(1). 1 pl. (fold.).*

Numerous references to birds in each month of the year. A second edition, 16mo, was published in 1799, and a fourth in 1815.

AIKIN, JOHN [1747–1822].

1790. An Essay on India, its boundaries, climate, soil, and sea. (On the birds of Paradise and the Phoenix.) Trans. from the Latin of *J. R. Forster* (q.v.).

1795. A naturalist's calendar, &c. *See* WHITE, REV. GILBERT.

1798. The natural history of the year; being an enlargement of Dr. Aikin's Calendar of nature by A. Aikin. *See* AIKIN, A.

AIKMAN, JAMES.

1852. A Natural History of Beasts, Birds and Fishes, &c. *8vo.* (Wanting.) *London.*

AITCHISON, JAMES EDWARD TIERNEY [1836–98].

1887. Zoology of the Afghan Delimitation Commission.

AITINGER, J. C.

1653–4. Kurtzer und einfaltiger Bericht vom dem Vogelstellen, &c. 4to. Pp. 12+351+9. 52 pl. Engraved title and index. *Cassel.*

This is a very rare title, in the E. S. W. Library, not listed in the Cat. Br. Mus. (Nat. Hist).

AITKEN, E. H.

1883. The tribes on my frontier; an Indian naturalist's foreign policy, by Eha. With illustrations by F. C. Macrae. *cr. 8vo. pp. viii+216. front. 8 pl. 39 figs. T. of c.* *Calcutta.*

These papers were written during the Afghan war by E. H. Aitken, an officer in the Indian Government. They are irresistibly funny in

description (of the various small animals and insects encountered by the author) and illustration, but full of genuine science too. There are several references to birds under the following headings, viz. the crows, p. 55; birds of the garden, pp. 135–46; birds at the mango top, pp. 147–57; birds at the tank, pp. 158–71; the poultry-yard, pp. 172–83. A sixth edition appeared in 1897 (q.v.), and a ninth in 1920 (q.v.). This writer adopted the pseudonym Eha or EHA.

1897. The tribes on my frontier. Illust. by F. C. Macrae. 6th ed. *cr. 8vo. pp. (6)+216. front. 7 pl. 57 figs. T. of c.* *London.*

The text of this edition is apparently the same as that of 1883. The illustrated title-page, however, does not appear, but a list of figures has been added, as well as seventeen extra illustrations.

1920. The tribes on my frontier; an Indian naturalist's foreign policy, by EHA. Illust. by F. C. Macrae. 9th ed. *cr. 8vo. pp. (6)+216. front. 7 pl. 57 figs. T. of c.* *London.*

The text and illustrations in this edition appear to be the same as that of 1897.

1923. A naturalist on the prowl or in the jungle, by Eha. Illust. by R. A. Sterndale. 5th ed. *12mo. pp. xii+257. front. 77 figs. T. of c.* *London.*

The author here deals in his amusing and interesting way with the animals, birds, and insects, &c., that are common to India, forming to some extent a sequel to his *The Tribes of My Frontier*. There are seventeen illustrations of birds with appropriate text. The first edition appeared in 1894.

n.d. The common birds of Bombay by E. H. A. Illust. 2nd ed. *8vo. pp. xiv+195. 32 figs. T. of c. 2 indexes.* *Bombay.*

This work consists of a number of popular articles which were first published in the *Times of India* on the common birds of Bombay, and are here republished with some additions.

AJA'IBA'L-MAKHLUQAT, by Zakariya Cazwini, XIIIc. Persian trans. Cosmography and natural science. *large 4to. lithograph. pp. 584. n.d. See also* CAZWINI and AL-QAZWINI. *Lucknow* (?).

(K.) AKADEMIE VAN WETENSCHAPPEN. *Amsterdam.*

1898–*date*. Proceedings. Afdeeling Natuurkunde.
1865–84. Processen-verbaal. Afdeeling Natuurkunde.
1854–92. Verhandelingen. Afdeeling Natuurkunde.
1892–*date*. Verhandelingen. First section (Natuur kunde, &c.).
1892–*date*. Verslagen van de gewone vergaderingen der wis- en natuurkundige afdeeling. (Wanting.)

AKADEMIE DER WISSENSCHAFTEN, PREUSS., BERLIN.

1926–7. Nomenclator animalium generum et subgenerum, hrsg. von. F. E. Schulze, W. Kükenthal; fortgesetzt von K. Heider. Schriftleiter: Th. Kuhlgatz, Berlin. Pts. 1–6.

(K.) AKADEMIE DER WISSENSCHAFTEN. *Vienna.*

1864–*date*. Anzeiger. Math.-Naturwiss-Klasse.
1850–*date*. Denkschriften. Math. - Naturwiss-Klasse.
1848–*date*. Sitzungsberichte. Math.-Naturwiss-Klasse. (Wanting.)

AKADEMIIA NAUK, LENINGRAD.

1777–82. Acta. (Wanting.)
1860–88. Bulletin. Series 3.
1890–4. Bulletin. ,, 4.
1894–1906. Bulletin. ,, 5.
1907–*date*. Bulletin. ,, 6.
1836–42. Bulletin scientifique. Series 1.
1843–59. Bulletin de la Classe Physico-Mathématique. Series 2.
1726–46. Commentarii. (Wanting.)
1828–57. Compte rendu.
1849–94. Mélanges biologique.
1831–59. Mémoires. Sciences . . . naturelles.
1859–97. Mémoires.
1829–35. Mémoires—supplement. Bulletin scientifique.
1783–1802. Nova Acta. (Wanting.)
1827–48. Recueil des Actes. (Wanting.)
1853–9. Recueil des mémoires.

AKADEMIJA UMIĘJETNOŠCI, KRAKOW.

1889–1900. Bulletin international. Comptes rendus des séances.
1901–*date*. Bulletin international. Classe des sciences . . . naturelle.

AKELEY, CARL E.

1929. In Brightest Africa.

The writer (whose early death is much to be deplored) approaches and deals with the fauna—especially the larger animal life—of Africa in a manner quite unlike the usual traveler and sportsman. Although essentially a collector of specimens for an American museum his activities (much aided by his clever wife) are invariably those of an educated naturalist eager to observe and record hitherto unobserved characters in the animals he meets.

AKSELL, P. M. *See* THUNBERG, C. P.

ALABAMA BIRD DAY BOOK.

1913–15. *3 vols. col. pl.* *Montgomery.*

ALABAMA MUSEUM OF NATURAL HISTORY. Museum Papers.

1910–*date*. (Geological Survey.) *Tuscaloosa, Ala.*

ALAUDA. Études et notes ornithologiques.

June, **1929–*date*.** No. 1. June; no. 2, July; no. 3, Aug. 1929. *Paris.*

This is a new and popular ornithological journal in which many French naturalists are interested and to which they contribute. Among them are J. Delamain, P. Paris, and H. Heim de Balsac. In number three is a paper on Ornithomelology, or an analysis of Bird-song.

ALBARDA, HERMAN [–1899].

1884. Naamlijst der de provincie Friesland in wilden staat waargenomen vogels met vermelding van al de soorten, die in Nederland voorkomen. *8vo. pp. 147. index.* *Leeuwarden.*

A privately published descriptive list of the birds of Friesland, second edition of an earlier (1866) catalogue. The treatise is in fact a brief study of Dutch avifauna.

1897. Aves Neerlandicae. Naamlijst van Nederlandsche Vogels. *8vo. index. pp. vi+151.* *Leeuwarden.*

Second edition of short descriptions, with synonymy, range, vulgar and scientific names, of Dutch birds.

ALBATROSS.

1912–19. Vols. I–VII (all pub.). *Cleveland, Ohio.*

A rare and rather important periodical.

ALBERT, FEDERICO.

1898. Contribuciones al Estudio de Aves Chilenas. (Wanting.)

ALBERT HONORÉ CHARLES, *Prince of* **Monaco.**

1889–*date*. Resultats des Campagnes scientifiques &c. Vols. 1–66 to 1922. *8vo.* *Monaco.*

These noted oceanographic reports made from material collected mostly during voyages by the Prince's yacht, the 'Hirondelle'.

ALBERTINUS, AEG.

1612. Der Welt-Tummel und Schaw-Platz. *München.*

A rare work mostly on natural history.

ALBERTIS, ENRICO ALBERTO D' [1847–].

1888. Crociera del Corsaro alle Azzorre. *8vo. pp. 269+3. illust. maps.* *Milano.*

ALBERTIS, LUIGI MARIA D' [1841–1901].

1881. New Guinea: what I did and what I saw. *2nd* ed. *2 vols. 8vo.* Vol. I, *pp. xii+424. front. (portr.). 20 pl. (4 col., birds). 59 figs. 1 map (col. fold.). T. of c.* Vol. II, *pp. xii+422. 17 pl. 23 figs. T. of c. index.* *London.*

A very interesting account of the author's various voyages and explorations during the years 1871–7. Both volumes abound with references to birds, in addition to which there are catalogues of birds collected in New Guinea (N.W.) in the year 1872—including many new species—also in New Guinea (S.E.) in the year 1875. Six of the thirty-eight plates represent birds, four of which are coloured.

ALBERTUS MAGNUS [1193–1280].

1479. De Animalibus. Hain-Cop. 546. *Folio.* Pub. by Paul of Butzbach. *Editio princeps.* For a complete review of this very rare title see Stadler (*Beitraege z. Gesch. d. Philos. d. Mittelalters*, Bd. 15–16, Münster, 1916–21). *Mantua.*

A full account of the author's ornithology is given by S. Killermann in *Die Vogelkunde des Albertus Magnus, Regensburg*, 1910.

1490. Summa naturalium (Philosophia naturalis). B. Farfengus. *sm. 4to* [O. 7406.] Hain-Cop. 504. *Brescia.*

(**1490**). Liber aggregationis seu secretorum; et de mirabilibus mundi. [O. 7407]. *sm. 4to.*

1508. Das Buch der Versamlung . . . vnd von etlichen Thieren. First German edition. Brunet. *Strassbourg.*

1545. Thierbuch &c. *8vo. ff. 172. 215 col. illust.* *Franckfort-am-Main.*

1596. De Falconibus, Asturibus, et Accipitribus. Appendix to Frederic II, Reliqua Librorum—De Arte Venandi cum Avibus. *sm. 8vo. See* FREDERICK II. *Augsberg.*

1778–89. Albertus Magnus Capit. de falconibus, asturibus, &c. Jo. G. Schneider. Bound with the 1596 ed.

1928. *See* BALSS, HEINRICH.

ALBIN, ELEAZAR [fl. 1713–59].

[1731–8.] A natural history of birds. Illustrated with . . . copper plates, curiously engraven from the life. And exactly colour'd by the author. To which are added, notes and observations by W. Derham. *3 vols. 29½×24½ cm. 306 col. pl. index.* *London.*

The following is the collation of the library copy of this the first published series of colored plates of British birds, and about which there is considerable confusion as to the dates of publication:

Vol. I. 1738. pp. 7+96+4. 101 col. pl. Index; 'In two volumes, Vol. I.'

Vol. II. 1738. pp. 7+92. 101 col. pl. Index. 'In two volumes. Vol. II.'

Vol. III. 1738. pp. 7+95+1. 101 col. pl. Index.

The Library of Congress gives the dates of publication of their volumes 1–2 as 1831–4. Vol. III is sometimes treated as a supplement to vols. I and II; and it occasionally appears with the date 1840.

Mullens and Swann point out that the three-volume editions, as in the case of the copy in hand, were printed 'before 1738' and when the third volume was completed the three were issued together, with changed title, and all given the same date. The title of the third volume in the copy in hand is 'A natural history of Birds illustrated with a Hundred and one Copper Plates, engraved from the Life. Published by the Author Eleazer Albin, and carefully colour'd by his Daughter and Himself, from the Originals, drawn from the live Birds'.

1737. A natural history of English song-birds, and such of the foreign as are usually brought over and esteemed for their singing. *sm. 8vo. index. front. pp. [4]+98+[2]. 23 copper pl.* *London.*

The above is the first edition of a popular, indeed famous, little book of which there have been many editions.

1740. A Supplement to the Natural History of Birds. *London.*

1754. A natural history of singing birds; and particularly that species of them most commonly bred in Scotland; by a lover of birds [pseud.]. *12mo. pp. [16]+170. col. front. 30 col. pl. index.* *Edin.*

A pirated edition, with the plates colored, of Albin's *A Natural History of English Song-Birds*; first edition, 1737. In this state it is much the rarest of the half-dozen printings of this little treatise, which was quite popular in its day.

1779. A natural history of English song-birds, including such foreign birds as are usually brought over and esteemed for their singing: &c. New ed. *12mo. front. pp. 4+107. 92 col. figs. index. Lond.*

One of the half-dozen editions of this or similar titles. The popular book may be regarded as the *fourth edition*. There were also two pirated printings.

ALBUM DER NATUUR. HAARLEM.

1852–1909. 58 vols. Tables 1852–94. 61 vols. in all. Serial.

Contains much natural history, illustrations and text.

ALCOCK, ALFRED WILLIAM [1859–].

1899. A Descriptive Catalogue of the Deep Sea Fishes in the Indian Museum. 'Investigator' Marine Survey. *4to.* *Calcutta.*

1899. *See* CALCUTTA. INDIAN MUSEUM.

1902. A naturalist in Indian seas; or, Four years with the Royal Indian marine survey ship 'Investigator'. *8vo. pp. xxiv+328. front. 98 figs. map (fold.). T. of c. 2 appends. index.* *New York.*

References to birds: Behaviour of birds, pp. 123–6; Edible nests of swifts, p. 81; Breeding haunts of sea-birds, and destruction of young by crabs, pp. 181–3; Oceanic Teal and Snipe on Great Coco, and Andaman teal on Little Coco islands.

ALCOCK, THOS. *See* SCIENCE LECTURES, 1883–5.

ALDRIDGE, W.

1885. A gossip on the wild birds of Norwood and Crystal Palace district. *sm. 8vo. pp. xiii+109. front. 12 pl. T. of c.* *Upper Norwood, London.*

ALDROVANDUS, ULYSSES [1522–1605].

1599–1664. Opera omnia. *11 vols. folio.* A fine and complete set that includes the *De animalibus Insectis libri septem*; De Avibus; De Piscibus; De Quadrupedibus; De Serpentibus; De Draconibus; De Monstris, etc.

This celebrated naturalist was born at Bologna of a noble family and devoted his life to lecturing, collecting specimens, and in writing and illustrating numerous treatises on biological subjects. He became blind a few years before his death but died rich in honors, although for many years he spent most of his income in scientific pursuits. The *Bib. Osleriana* also has the complete zoological works of Aldrovandus in later (1602–45) editions.

1603–81. Ornithologiæ, hoc est de Avibus Historiæ libri XII. Tomi 3. *folio.* *Bonon.*

These three volumes were issued at different dates and by different presses. [O.]

1610–35. Ornithologiæ hoc est, de avibus historiæ libri XII. *3 vols in 1. illust.* *Francofurti.*

Vols. 2–3 have title: *Ornithologiæ tomus alter-*[*tertius*] and contain libri XIII–XX.

1613. De Piscibus libri V, etc. 1st ed. *folio.* *Bononiæ.*

1638. De piscibus libri 5, et de cetis, lib. unus; J. C. Uterverius collegit. M. A. Bernia in lucem restituit. *folio. pp.* [*6*]+*732. illust.* *Bononiæ.*

A separately published volume from the author's collected works, edition of 1638.

1639. De quadrupedibus solidipedibus volumen integrum; J. C. Uterverius collegit et recensuit, M. A. Bernia in lucem restituit. *folio. pp.* [*2*]+*495. illust.* (in his [Collected works, 1638—vol. 3]). *Bononiæ.*

1640. Serpentvm, et draconvm historiæ libri dvo. Bartholomævs Ambrosinvs . . . opvs concinnauit . . . *4 p. l., pp.* [*30*]+*427, illust.* Engr. title. Colophon: Bononiæ M.DC.XXXIX. *folio.* *Bononiæ.*

1642. Quadrupedum omniū bisulcorū historia J. C. Uterverius colligere incoepit. Thomas Dempsterus perfecte absoluit, M. A. Bernia in lucem editit. *folio. pp.* [*6*]+*1040. illust.* *Bonon.*

1642–57. Monstrorum historia; cum Paralipomenis historiae omnium animalium. Bartholomaeus Ambrosinus volumen composuit, M. A. Bernia in lucem edidit. *2 pts. in 1 vol. folio. illust.* *Bononiæ.*

1645. De quadrupedib. digitatis viviparis libri tres, et de quadrupedib' digitatis oviparis libri duo; Bartholomaeus Ambrosinus collegit. *pp.* [*2*] +*718. illust. folio.* *Bonon.*

1645. Quadrupedum omnium bisulcorum Historia. *folio. illust.* [O.] *Bonon.*

1645–6. Ornithologiae hoc est de avibus historiae libri 12–[20]. *3 vols. folio. illust.* *Bonon.*

1766. De Piscibus libri V, etc. *folio. illust.* [O.] *Bonon.*

1908. Onoranze a Ulisse Aldrovandi nel terzo centenario, etc. *folio.* [O.] *Imola.*

'ALERT', H.M.S. *See* GUENTHER, A. C. L. G. 1881.

1884. Report on the Zoological Collections made in the Indo-Pacific Ocean . . . by H.M.S. 'Alert'. *8vo.* *London.*

The accounts of work done in Vertebrate Zoology during this celebrated Voyage will be found mostly under Guenther, A. C. L. G., 1881.

ALEXANDER, WILFRID BACKHOUSE [1885–].

1928. Birds of the ocean, a handbook for voyagers containing descriptions of all the sea-birds of the world, with notes on their habits and guides to their identification. *8vo. pp. xxiii*+(*1*)+*428. 140 illust. front. 87 pl. T. of c. append. index.* *New York.*

Probably the first comprehensive treatise of the birds of the ocean, the aim of the author having been to prepare a convenient pocket handbook for the identification of the various species of sea-birds likely to be met with on voyages in any part of the world. Excellent plates from photographs accompany the text.

ALEXANDRE, NICOLAS [1654–1726].

1777. Dictionnaire botanique, etc.—et des animaux d'usage.

ALFARO, ANASTASIO.

1897. Mamiferos de Costa Rica, etc. *8vo.* (Wanting.) *San José. Costa Rica.*

An important local faunistic treatise.

ALGEMEENE GENEES- NATUUR- EN HUISHOUDKUNDIGE JAARBOEKEN.

1785. *Dort.*

ALGERIA.

1844–67. Exploration scientifique de l'Algérie pendant les Années 1840, 1841, 1842, publiée par Ordre du Gouvernement et avec le Concours d'une Commission académique. Zoologie. *10 vols. folio.* Complete, with 299 coloured plates. *Paris.* Mollusques, par M. G. P. Deshayes; Animaux Articulés, par H. Lucas; Reptiles et des Poissons, par A. Guichenot; Oiseaux, par V. Loche; Mammifères, par V. Loche.

A very important and finely illustrated record. African vertebrate zoology is well represented by celebrated writers.

AL-GHĀFIKĪ [d. 1165].

(A.H. **654.**) *Manuscript in Arabic,* by al-Ghāfikī, a Spanish physician, on *Simples,* arranged alphabetically. Vol. I (A–K) only. Illustrated with 367 col. drawings, among them 6 of animals. [O. 7508.]

ALGIERS.

1920–*date.* Travaux du Laboratoire de Zoologie générale.

1921–*date.* Travaux du Laboratoire de Zoologie appliquée.

ALIX, EDMOND.

1874. Essai sur l'appareil locomoteur des oiseaux. *8vo. T. of c. pp. ii*+*583. 3 pl.* *Paris.*

A comprehensive, scientific, and valuable contribution to a study of locomotion in birds and other animals. Autographed, presentation copy from the author.

AL-JĀHIZ [? 800–865]. In Arabic.

1899–1905. Book of Animals. *7 vols. 8vo.* *Cairo.*

The Compiler is indebted to Professor Ramsay Wright of Toronto for the following notes on this important, early Moslem work on zoology: 'The treatise is frequently mentioned in Bochart's *Hierozoicon* [two editions of which are in the McGill libraries] and by Qazwīnī (d. 1283) and Damiri (d. 1405) [titles also in McGill, q.v.], who borrow largely from Al-Jāhiz. Under the caption Al-Jāhiz or Djāhiz a reference to the present work will be found in the *Encyclopaedia of Islam,* vol. I.'

ALLEN, A. A. and **FUERTES,** L. A.; **PIRNIE,** M. D.

1927. General ornithology laboratory notebook for the recording of observations made in the field and studies made in the laboratory on the birds of Eastern North America. *4to. pp.* (*320*). *5 pl. 461 figs.* (*250 maps.*) *Ithaca.*

Issued by Cornell University. Included in this notebook are studies of the bird's skeleton, external parts, and feathers. Keys to the orders of N.A. birds; migration data for the birds of Central New York, a field roll book, key to the nests of birds of E.N. America, and 125 identification and life-history sheets for intensive studies of the birds of E.N. America. These sheets are supplied with outline maps for charting distribution and with outline figures of the birds for coloring.

ALLEN BIRD CLUB. *See* ANNUAL REPORT OF THE ALLEN BIRD CLUB.

ALLEN, E. J. **1928.** *See* CHALLENGER SOCIETY.

ALLEN, FRANCIS H.

1925. Thoreau's Bird-Lore, etc. *12mo. Boston.*

ALLEN, GLOVER MORRILL [1879–].

**** and **HOWE,** R. H. *jr.*

1901. The birds of Massachusetts. *See* HOWE, R. H.

1903. A list of the birds of New Hampshire. *Manchester N.H.*

1904. Fauna of New England. II. *Aves.* Boston Soc. of Natural History.

1909. Occasional papers of the Boston Society of Natural History. VII. Fauna of New England. II. *List of the aves. 8vo. pp. 4+10+230.*

An annotated list of all the birds known to have occurred in New England within historic times. The nomenclature is that adopted by the American Ornithologists' Union Check-list, July 1908. The birds listed number 402; irrespective of introduced, escaped, or hypothetical species which are given in a separate list.

1909. *See* GRENFELL, W. T.

1924. An introduction to the study of birds. Being ten lectures delivered under the auspices of the New England bird banding association. Unpaged. *2 pp. l., 118 pp. 23½ cm.* Lectures 3–10 have each a separate t.-p.

This may be regarded as a prefatory volume to the author's *Birds and their Attributes.*

1925. Birds and their attributes. *pp. xiii+338. col. front., illus., plates, port. 21½ cm. Index.*

Originally prepared as a series of lectures under the auspices of the New England (now Northeastern) bird banding association. An admirable account of the human and many other relations of birds.

ALLEN, GRANT [1848–99].

1881. Vignettes from nature. *8vo. pp. viii+229. T. of c. London.*

Only one of the above vignettes is devoted to birds, and that to the Heron. This admirable brochure was also published as No. 33, vol. 2, of the Humboldt library.

1898. Flashlights on nature. *8vo. pp. viii+312. 144 pl. T. of c. New York.*

One of the above interesting life-histories is devoted to birds, seven plates depicting phases in their life-history.

1905. Flashlights on nature; a popular account of the life histories of some familiar insects, birds, plants, etc. *8vo. pp. viii+312. new ed. front. 144 pl. T. of c. New York.*

The first edition of this charming work was issued in 1898.

1908. The natural history of Selborne. *See* WHITE, REV. GILBERT.

ALLEN, HARRISON [1841–97].

1864. Monograph of the bats of North America. *8vo. pp. 22+[2]+85. illust.* (Smithsonian miscellaneous collections, no. 165.) *Wash.*

Author's separate of an important tract.

ALLEN, JOEL ASAPH [1838–1921].

1868. Birds Observed in Western Ohio, Northern Ill. and Richmond, Ind. *4to. Boston.*

One of the first brochures of a famous American naturalist, many of whose contributions to vertebrate zoology were made to periodical and government publications.

1869. Catalogue of the Mammals of Massachusetts, etc. *8vo. pp. 65. Washington.*

An excerpt of considerable value to the systematist.

1872. Bulletin of the Museum of Comparative Zoology, at Harvard College, Cambridge, Mass., Vol. III, No. 6. Notes of an ornithological reconnaissance of portions of Kansas, Colorado, Wyoming, and Utah. *8vo. pp. 113–83. Cambridge.*

In this author's reprint are indicated some of the results of field work on the Plains and in the central portions of the Rocky Mountains; these results include more or less complete annotated lists of the birds of nine quite widely separated localities, with a general summary of the whole.

1873–90. *See* UNITED STATES. SURVEY OF TERRITORIES.

1874. Notes on the Natural History of Montana and Dakota. Author's separate. *Boston.*

1876. The American bisons, living and extinct. *4to. pp. 10+246+12 pl. map.* (Harvard Coll. Museum of comparative zoology. Memoirs, vol. 6, no. 10.)

1876. Progress of ornithology in the United States during the last century. *8vo. pp. 16.* Author's separate.

This paper reviews the early articles, general works, as well as works and papers of a special or local character on American birds, concluding with a summary of the progress of Ornithology in the United States during the last century. [From the *American Naturalist,* vol. X, pp. 536–50, September 1876.]

1880. History of North American pinnipeds; a monograph of the walruses, sea-lions, sea-bears and seals of North America. *8vo. pp. 16+785. 66 figs.* (U.S. Geological and geographical survey of the territories. Miscellaneous publications, no. 12.) Author's separate.

1884–7. *See* UNITED STATES. BUREAU OF FISHERIES.

1886. Revised List of the Birds of Massachusetts.

1889. On Cyclorhis viridis (Viell.) and its near allies, with remarks on other species of the genus Cyclorhis. *8vo. pp. 123–35. 7 figs.* (Extracted from *Bull. Am. Mus. Nat. Hist.,* Vol. II, No. 3.) Author's edition issued June 17, 1889. *New York.*

Three times within the space of five years had this genus been monographed; by Hans Gadow in 1885, by Dr. Sclater in 1887, and Count von Berlepsch in 1888, but in each case with only partially satisfactory results, owing in large part to lack of a sufficient number of specimens to show what limit of variation in any one form should be allowed for individual variation. Luckily this deficiency, in the case of one species at least (C. viridis) was supplied by material which came into Mr. Allen's hands while the subject was fresh, thus enabling him to supplement the efforts of his predecessors by a much more elaborate paper. The article contains the author's present impressions of the status, relationships, and distribution of the various forms of Cyclorhis, concluding with an excellent Key to the species.

1892. The North American species of the genus Colaptes, considered with special reference to the relationships of C. auratus and C. cafer. Author's edition, extracted from *Bulletin of the American Museum of Natural History,* vol. IV, no. 1, article II, pp. 21–44. *8vo. pp. [24]. 1 map (fold). New York.*

In arriving at a solution of this problem 785 specimens of the genus *Colaptes* were examined, representing all of the North American and West Indian forms of the genus in the leading public and private museums of the country.

1892. Description of a new Gallinule, from Gough Island. *8vo. pp. 57–8.* Author's edition, extracted from *Bulletin of the American Museum*

of Natural History, Vol. IV, No. 1, Article VI, pp. 57–8. New York, May 9, 1892. *New York.*

Gough Island is situated about 200 miles south-west of the Cape of Good Hope, and about the same distance east of Tristan d'Acunha. It is a mere volcanic islet about 7 miles long by 3–4 wide and rises to 4,380 feet, very little apparently being known of its natural history. The species here described is based on three skins collected by Mr. Geo. Comer, after whom the species is named *Porphyriornis comeri, gen. et. sp. nov.*

1896. Alleged changes of color in the feathers of birds without molting. *8vo. pp. 13–44.* Author's edition, extracted from *Bulletin of the American Museum of Natural History*, Vol. VIII, Art. III, pp. 13–44. N.Y. Mch. 18, 1896. *New York.*

A summary and criticism of the work of some of the more important writers upon the subject of color changes in feathers without molt, and it deals unsparingly with those who have asserted as possible the complete rejuvenation of an abraded feather. These observers appear to have had too little material on which to build and so have had recourse to fanciful theories which the present author has done his best to explode.

1900. List of birds collected in the district of Santa Marta, Colombia, by Mr. Herbert H. Smith. Author's edition, extracted from *Bulletin of the American Museum of Natural History*, vol. XIII, article XIV, pp. 117–83. *8vo.* *New York.*

The basis of this list representing 388 species is a collection of 2,834 birds collected by Mr. Smith in the neighborhood of Santa Marta, Columbia, between sea-level and an altitude of about 8,000 feet, from May 4, 1898, to September 7, 1899.

1905. Mammalia of Southern Patagonia. Princeton Univ. Expedition. Vol. III, Pt. 1.

1905. Report on the birds collected in Northeastern Siberia by the Jesup North Pacific Expedition, with field notes by the collectors. *8vo. pp. 219–57.* *New York.*

Author's edition, extracted from *Bulletin of the Am. Mus. Nat. Hist.*, vol. XXI, art. XIII, pp. 219–57. N.Y., July. 24, 1905. The second of a series of papers on the Zoological results of the Siberian Division of the Jesup North Pacific Expedition, the first relating to the Mammals. The collection of birds, like the collection of mammals, was made chiefly by Mr. Buxton whose itinerary and general description of the country appears in the previous paper, pp. 104–19. The collection contains 800 skins, of which 580 were Mr. Buxton's, the remainder being presented by Mr. Sokolnikoff, an officer in the Russian army and Governor of the Anadyr District, with head-quarters at Marcova. The number of species represented in the collection and here included in the annotated list is 127, of which two—an Alauda and an Anthus—appear to be not heretofore described.

1907. The Boeolophus bicolor-atricristatus group. *8vo. pp. 467–81.* *New York.*

1907. The types of the North American genera of birds. *8vo. pp. 106.* *New York.*

An author's edition, extracted from the *Bulletin of the American Museum of Natural History*, vol. XXIII, article XVI, pp. 279–384, New York, Apl. 15, 1907. In its pages the genera and subgenera of the present (second) edition of the A.O.U. *Check-List of North American Birds* and its several supplements are taken up in the systematic sequence of the Check-List, for the purpose of showing how the types, as now currently accepted, came to be so recognized, and in cases where the type was determined by elimination, an attempt is made to show each step of the process.

1908. A list of the genera and subgenera of North American birds, with their types, according to article 30 of the International code of zoological nomenclature. *8vo. pp. 50.* *New York.*

Author's edition, extracted from *Bulletin of the American Museum of Natural History*, vol. XXIV, article I, pp. 1–50. New York, December 26, 1907. In a previous volume of this *Bulletin* (vol. XXIII, pp. 279–384, Apl. 15, 1907) the author published a paper entitled *The Types of the Genera of North American Birds*, as determined in accordance with the rule of priority, or the so-called method of elimination. The present investigation was undertaken for the purpose of determining the truth or fallacy of certain allegations regarding the results of type-determination by the above method of elimination.

1910. Collation of Brisson's genera of birds with those of Linnaeus. *4to. pp. [21].* *T. of c.* (Am. *Mus. Nat. Hist. Bulletin*, vol. 28, art. 27, pp. 317–335.)

Author's edition which is for that reason, although a separate, annotated here; also because it is a valuable contribution to the early history of ornithology.

1919. Synonymy and Nomenclature of the Smaller Spotted Cats of Tropical America. *8vo. pp. 79. 31 illust.* *N.Y.*

A valuable work of reference.

1925. Primates collected by the American Museum Congo Expedition. *89 plates.* *New York.*

****** and others.**

1886. The code of nomenclature and check-list of North American birds adopted by the American ornithologists' Union. Being the report of the committee of the Union, . . . [J. A. Allen and others]. *See* AMERICAN ORNITHOLOGISTS' UNION.

1895. Second edition.

1908. Revised edition.

1910. Revised edition.

ALLEN'S NATURALIST'S LIBRARY.

1894–7. Edited by R. B. Sharpe. The components of this semi-popular series are nearly all—including the vertebrate zoological titles—annotated in the accompanying Catalogue. The faunal subjects of especial interest are: Primates, by H. O. Forbes, 2 vols., 1894; Carnivora, R. Lydekker (1895); Marsupialia and Monotremata, R. Lydekker (1894); British Mammalia, R. Lydekker, 1895; Game Birds, W. R. Ogilvie-Grant, 1895 et seq.; Birds of Great Britain, 4 vols., R. B. Sharpe.

ALLÉON, LE COMTE.

1898. Nouv. procédés de taxidermie, accomp. de qq. impressions ornithol., de photogr. des princ. types de la Coll. de l'auteur à Makri-Keui, près Constantinople, et de physionomies de rapaces sur nature. *4to, 132 figs.*

A rare item, not listed in the *Br. M. Cat.* (*Nat. Hist.*), but in the *Cat. of the Lib. Zool. Soc.*

ALLÉON-DULAC, J. L.

1763–5. Mélanges d'histoire naturelle. *6 vols. illust. with pl.* *Lyon.*

Contains notes on the whole range of natural history.

ALLGEMEINE BIBLIOGRAPHIE. 1856–1914. *Leipzig.*

ALLGEMEINE DEUTSCHE NATURHISTORISCHE ZEITUNG ISIS.

1846–7. Vols. 1–2. *Dresden.*

1855–7. New series. Vols. 1–3.

ALLGEMEINE FISCHEREI-ZEITUNG.

1876–*date.* *Munich.*

ALLGEMEINE GEFLUEGEL-ZEITUNG.

1883–4. Vols. 1–2 (all pub.). *Wien.*

ALLGEMEINE SCHWEIZERISCHE GESELLSCHAFT FUER DIE GESAMMTEN NATURWISSENSCHAFTEN.

1825–1920. Actes de la Société Helvétiques des Sciences Naturelles. Sessions 11–98. *88 vols. 8vo. Solothurn.*

Each year's proceedings are, as a rule, printed and published in the town where the meeting is held; the title was formerly in the prevailing language of the place—German, French, Italian, and in one instance (1863) Romanish; but since that date two title-pages (German and French) have been issued.
This edition, issued by the *Archives des Sciences de Genève*, really includes all the headings of the French-German Society—Actes, Comptes Rendus, Verhandlungen, etc.

See also SCHWEIZERISCHE NATURFORSCHENDE GESELLSCHAFT.

ALLGEMEINES MAGAZIN DER NATUR, KUNST U. WISSENSCHAFT.

1753–67. Vols. 1–12. Index. (all pub.). *Leipzig.*

ALLUAUD, CHARLES A. (1861–) and **JEANNEL,** R.

1912–*date*. Voyage . . . en Afrique Orientale, 1911–12. Resultats Scientifiques. *8vo.* (Wanting.) *Paris.*

Although this report of the fauna of East Africa is valuable so far as it goes there is little of vertebrate zoology furnished. Alluaud, however, gives an interesting account of the fishes in Lake Victoria Nyanza.

AL-MUSTAUFI AL-QAZWĪNĪ, HAMDULLAH.

1928. The Zoological Section of the Nuzhatu-l-Qulub. Edited, translated and annotated by Lieut.-Colonel J. Stephenson. Pub. by the Royal Asiatic Society. Oriental Translation Fund, New Series, vol. XXX. *8vo. pp. xix+100+128. index. London.*

The original treatise, with the flowery title of *Heart's Delight*, is a scientific encyclopedia giving the Persian views of the natural world as held in the fourteenth century. The portion devoted to zoology is the third *martaba* (chapter) of the first *maqala* (section), and Stephenson has fully translated it with valuable notes. A reproduction of the Persian manuscript (written A.H. 740) occupies the second half of the book.

ALPHÉRAKY, SERGIUS [1850–].

1900. Útki Rosíi. *2 pts. St. Petersburg.*

1905. The geese of Europe and Asia; being the description of most of the old world species; [illust.] by F. W. Frohawk and P. P. Sushkin. *folio. index. pp. 8+[2]+198. 24 col. pl. London.*

English translation of the Author's Russian work (*Gusi Rosíi*) on the geese of the palearctic region published in 1904. There is an Appendix I, by G. F. Göbel, on the Eggs of Russian Geese; as well as Appendix II by Buturlin on a visit to Kolguev in 1902. The colored plates are well printed.

ALPINA.

1806–1827. First Series, *4 vols. 8 vo.*, 1806–09, ed. by C. V. von Salis and J. R. Steinmüller. *Neue Alpina* (J. R. Steinmüller) *2 vols. 8 vo.* 1821–27. *Winterthur.* Both series record new species. (Wanting.)

ALPINUS, PROSPER [1553–1617].

1735. Historiae Aegypti naturalis; opus postumum. *2 vols. 8vo. pl. Lugduni Batavorum.* CONTENTS. Vol. 1. Rerum Egyptiarum libri quatuor. 2. Plautis Egypti.

AL-QAZWINI, ZAKARIYA B. MUHAMMAD.

Ca. **1675.** Ajaibul-makhluqat. Wonders of creation. Persian MS. *4to. Ff. 401. Numerous col. illust.*

This famous author's name is also transliterated Cazwini and Al-Cazwini.

This is a fairly good copy of the famous work on zoology originally written in Arabic about A.D. 1250. It has often been reproduced in MS. and by lithography and translated into Persian, Hindi, and other tongues. The Blacker library has several other copies—some of them variants of the original. The paintings in the present copy are quite artistic; and the calligraphy is good.

ALSTON, EDWARD RICHARD [1845–81].

1876. *See* BRIT. ASSOCN. AD. SC.

1879–1915. *See* GODMAN AND SALVIN, BIOLOGIA CENTRALI-AMERICANA.

ALTENBURGISCHE NATURFORSCHENDE GESELLSCHAFT. *See* OSTERLÄNDISCHE BLÄTTER . . . GEWERBEKUNDE.

ALTON, JOHANN SAMUEL EDUARD D' [1803–54].

(1824.) Zur vergleichenden Osteologie von Goethe, etc. *4to. illust.* [O. 2768.] *Bonn.*

ALTON, J. W. E. D' [1772–1840]. *See* PANDER AND ALTON, 1821–38.

ALTUM, BERNARD [1824–1900].

1868. Der Vogel u. sein Leben. *8vo. pp. 16+256. Münster.*

The third German edition of this widely read and popular book.

1875. Der vogel und sein leben. *8vo. Index. pp. xv+295. Fifth edition. Münster.*

This popular work furnishes an interesting account of the feather formation, plumage coloration, song, nidification, family life, etc., of birds.

1876–80. Forstzoologie. 2te verbesserte und vermehrte Aufl. *8vo. 2 vols. illust. pl. Berlin.* CONTENTS. Vol. 1. Säugethiere. 2. Vögel.

1878. Lehrb. d. Zoologie. *8vo. pp. 424. 226 figs. Freiburg in Breisgau.*

This is the fourth edition of a well-known college text and reference work on general zoology.

******** and **LANDOIS,** H.

1883. De vogel en zijn leven, met bijzondere toelating des schrijvers vertaald door Frans de Poorter. *8vo. pp. 359. Lokeren.*

Dutch edition of a popular work on bird life.

ALVERDES, FRIEDRICH [1889–].

1923. Neue Bahnen in der Lehre vom Verhalten der niederen Organismen. *8vo. illust. pp. 64+4.* Bibliography, pp. 60–2. *Berlin.*

AMATEUR NATURALIST. *Ashland, Me.*

1904–9. Merged into Guide to Nature.

AMEGHINO, FLORENTINO.

1894. Sur les Oiseaux Fossiles de Patagonie. *8vo. Buenos Aires.*

AMERICAN ACADEMY OF ARTS AND SCIENCES.

1780–1821. Memoirs. *Boston.*

1846–*date*. Proceedings.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE. *Salem.*

1875. Memoirs.

1848–*date*. Proceedings.
See also SCIENCE. *Camb., Mass.*

1909. Fifty years of Darwinism, modern aspects of evolution; centennial addresses in honor of Charles Darwin, January 1, 1909. *8vo. 3+[3]+ 274 pp.* *N.Y.*

AMERICAN ASSOCIATION OF GEOLOGISTS AND NATURALISTS.
1840–2. Transactions. *Boston.*

AMERICANA COLLECTOR, THE.
June, 1926. *Metuchen, N.J.*

AMERICAN BIRD HOUSE JOURNAL.
Edited by J. W. Jacobs. *4to. 19+illust.* Vol. 4, no. 1, is January 1919; vol. 5, no. 1, is January 1921. Colored wrapper. *Waynesburg, Pa.*

This is a trade circular published under the guise of a periodical and in the interest of a commercial firm, but it advertises, nevertheless, a most useful adjunct to bird protection and bird culture. It may be described as an irregular annual.

AMERICAN EXCHANGE AND MART.
1884–7. Vols. I–III. *Boston.*

The compiler has seen only Vol. III, No. 4, Feb. 1887.

AMERICAN FIELD.
1874–5. Published as Field and Stream.

1875–6. Published as Field.

1878–81. Published as Chicago Field.

1882–*date*. Published as American Field. *Chicago.*

The American sportsman's journal—containing many articles on natural history.

AMERICAN FISHERIES SOCIETY.
1870–*date*. Transactions.

AMERICAN JOURNAL OF SCIENCE.
1818–96. 1820–79 known as American Journal of Science and Arts, also as Silliman's Journal of Science. Conducted by Benjamin Silliman, James D. Dana, etc.
First Series. 100 nos. forming 49 vols. General Index, 1 vol. In all 50 vols. 1818–45.
Second Series. 150 nos. forming 50 vols. 1846–70.
Third Series. 300 nos. forming 50 vols. 1871–95.
Fourth Series. Vol. 1, No. 1. 1896. *New Haven.*

AMERICAN JOURNAL OF SCIENCE AND ARTS. *See* AMERICAN JOURNAL OF SCIENCE.

AMERICAN KENNEL GAZETTE. 1888–*date*. *New York.*

AMERICAN MAGAZINE OF NATURAL SCIENCE. *Sac City* and *Des Moines, Iowa.*
1892–4. (All pub.)

AMERICAN MIDLAND NATURALIST. *Notre Dame, Ind.*
1909–*date*. Vols. 1–13. *See also* MIDLAND NATURALIST.

AMERICAN MUSEUM OF NATURAL HISTORY. *New York.*
1921–*date*. American Museum Novitates.

1907–*date*. Anthropological papers.

1881–*date*. Bulletin.

1912–*date*. Handbooks.

1901–*date*. Illustrated Guide Leaflets.

1893–1908. Memoirs.

1912–*date*. Memoirs. New series.

1913. Monographs; monograph ser. *8vo. vols. 1–3. illust. plates.*

1900–*date*. Natural History.

1869–*date*. Reports.

AMERICAN MUSEUM OF NATURAL HISTORY.
1917. Guide to the nature treasures of New York city. American museum of natural history—New York aquarium—New York zoölogical park and botanical garden—Brooklyn museum, botanic garden and children's museum. Prepared by George N. Pindar assisted by Mabel H. Pearson and G. Clyde Fisher. *12mo. pp. x+269. front. 61 figs. (3 maps, 6 plans.) T. of c.* [*New York.*]

An illustrated guide to the above Institutions. In the American Museum of Natural History the birds of the world numbering 13,000 known species will be found in the south central wing, pp. 50–4, whilst the local birds are in the west corridor, p. 58; and the habitat bird groups in the south central wing, pp. 74–85, with eight illustrations. References to birds in the other museums will be found on pp. 171–6, 234–7, and 243–8, with five illustrations.

AMERICAN NATURALIST, THE.
1867–*date*. Edited by A. S. Packard Jr., E. S. Morse, A. Hyatt and F. W. Putnam, (and afterwards) R. H. Ward, E. D. Cope, J. S. Kingsley, F. C. Kenyon, A. M. Brown. *8vo.* *Salem, Mass.*, etc.
Vol. I was published by the Essex Institute, Vols. II–IX by the Peabody Academy.

AMERICAN NATURE ASSOCIATION, WASHINGTON. *See* NATURE MAGAZINE.

AMERICAN NATURE STUDY SOCIETY. *See* NATURE-STUDY REVIEW.

AMERICAN ORNITHOLOGIST AND EXCHANGE.
1891. No. 1, March 1891. *8vo. 8 pp.* Devoted to the interests of all collectors. Editor: C. A. Morris; associate: J. F. Hoffman. All issued? Not seen by Compiler. Unimportant (Burns). (Wanting.) *Paw Paw, Ill.*

AMERICAN ORNITHOLOGISTS' UNION. *See* AUK.

1886. Committee on Protection of Birds. Bulletin. Nos. 1–2. *8vo.* *N.Y.*
No more published.

CONTENTS AND NOTES: No. 1. Destruction of our native birds. *16 pp.* Reprinted from the supp. to *Science*, Feb. 26, 1886. No. 160. 2. Protection of birds by legislation. *8 pp.* Reprinted from *Forest and stream*, Nov. 11, 1886.

This publication gives a complete account of the work of a vain conservation in the United States nearly forty years ago.

[**AMERICAN ORNITHOLOGISTS' UNION** (contd.)]

1886. The code of nomenclature and check-list of North American birds adopted by the American ornithologists' union. Being the report of the Committee of the Union on classification and nomenclature. (Coues, Elliott; Allen, J. A.; Ridgway, Robert; Brewster, William; Henshaw, H. W.) *8vo. pp. viii+392. T. of c. index.* *New York.*

A check-list of the species and subspecies of North American birds prepared by a committee of the American Ornithologists' Union appointed for the purpose. Original references are cited for generic, subgeneric, specific, and subspecific names and for accepted combinations, and the types of the genera and subgenera are indicated. References are given (by number) to the check-lists of Baird, 1858, Coues, 1873, Ridgway, 1880, and Coues, 1882, and the geographical distribution of each form is noted. This check-list occupies pp. 73–367, being preceded by a code of nomenclature drawn up by the committee for their own guidance in the preparation of the check-list.

1887. By-laws and rules and list of members. Dec. 1887. *8vo. pp. [2]+20.* *New York.*

Copy of the By-laws as they stood in 1887. An original copy is in the E.S.W. Library. These have since been amended from time to time, a copy of the latest rules appearing in the January number of the *Auk* for 1927.

1889. Check-list of North American birds. According to the Canons of nomenclature of the American Ornithologists' Union. Abridged ed. Revised. *8vo. 71 fol.* *Washington.*

This list contains not only the species and subspecies of the old Check-list, but also the additions and the changes of nomenclature made in the Supplement (published at the same time as the above), the additions being interpolated in their proper places. Another edition, the third (revised), was issued in August 1910.

1889. Supplement to the code of nomenclature and check-list of North American birds adopted by the American Ornithologists' Union; prepared by a committee of the Union. *8vo. pp. iv+23.* *New York.*

Embodies various changes in the A. O. U. check-list of 1886.

1889. Pocket Check-list of North American Birds.

1892. The Code of Nomenclature adopted by the American Ornithologists' Union. *New York.*

1895. Check-list of North American birds. Prepared by a Committee of the American Ornithologists' Union. (Coues, Elliott; Allen, J. A.; Ridgway, Robert; Brewster, William; Henshaw, H. W.) 2nd and revised ed. *8vo. pp. viii+345. (T. of c. and index both wanting in this copy.)* *New York.*

The second edition of the Society's Check-list (1st ed., 1886), embodying the changes in nomenclature and status of species which were made in the second to seventh supplements, published from time to time in the *Auk*, following the issuance of the revised edition of the Check-list in 1889. A third edition appeared in 1910.

1908. The code of nomenclature adopted by the American Ornithologists' Union. (Allen, J. A.; Brewster, William; Dwight, Jonathan, Jr.; Merriam, C. Hart; Richmond, Charles W.; Ridgway, Robert; Stone, Witmer.) Rev. ed. *8vo. pp. lxxxv. T. of c. index.* *New York.*

A revised edition of the first issue of 1886 (q.v.). In this many of the Canons have been more or less changed, usually by amplification without materially changing their purport or purpose; a few have been radically modified, chiefly by the adoption of the new 'Article 30' of the International Code of Zoölogical Nomenclature, which relates to the method of determining the types of genera.

1910. Check-list of North American birds. Prepared by a Committee of the American Ornithologists' Union. (Allen, J. A.; Richmond, Chas. W.; Brewster, William; Dwight, Jonathan, Jr.; Merriam, C. Hart; Ridgway, Robert; Stone, Witmer.) Third ed. (Revised.) *8vo. pp. 430. front. (map col. fold.). 1 map (fold). T. of c. index.* *New York.*

The third edition of the check-list embodying the changes published in the *Auk* in the eighth to fifteenth supplements to the Check-list. The plan of the work follows that of the 2nd edition 1895 (q.v.) with a few alterations. References are given to the original designation of the various generic types and the mode of such designation is indicated, the citations of original references to accepted combinations of names are omitted, type localities are given for the species and subspecies, and serial numbers, prominent in former lists, are subordinated.

1926. Exhibition of bird art held in connection with the 44th meeting of the American ornithologists' union, Victoria Memorial Museum, Ottawa, Canada, Oct. 11–31, 1926. *8vo. pp. 16.* [*Ottawa.*]

Catalogue of the 444 paintings, drawings, and photographs exhibited by members and others at the 44th Meeting—the first one ever held in Canada—of the American Ornithologists' Union. Included in the list is the Historical Collection loaned by the Emma Shearer Wood Library of Ornithology, McGill University Library, Montreal.

AMERICAN ORNITHOLOGY.

1901–6. For the Home and School. Monthly. *8vo.* *Worcester, Mass.*

Vols. I–VII, Jan. 1901 to July–August 1906. (All issued.) The periodical was discontinued owing to the death of the chief Editor.

The wrapper title-page (well illustrated by photo-engraved studies of birds and bird-life) shows several variations, especially in the subtitle. Sometimes part of this is printed diagonally or across the upper sixth of the title-page in (colored type larger than the major title, making it read 'American (BIRD MAGAZINE) Ornithology'; occasionally the larger lettering is confined to the word ORNITHOLOGY, thus reading 'American (ORNITHOLOGY) for the Home and School'. See cuts.

The Editorial title reads 'American Ornithology. A Magazine Devoted Wholly to Birds'.

Vol. I. 1901. Nos. 1–12. Jan.–Dec. *pp. 246. illust.*
Editor: C. Albert Reed.

Vol. II. 1902. Nos. 1–12. Jan.–Dec. *pp. 386. index. col. illust.*
Editor: Chester A. Reed. B.S.

Vol. III. 1903. Nos. 1–12. Jan.–Dec. *pp. xii+410. col. illust. index.*

Vol. IV. 1904. Nos. 1–12. Jan.–Dec. *pp. vi+336. col. illust. index.*

Vol. V. 1905. Nos. 1–12. Jan.–Dec. *pp. vi+308. col. illust. index.*

Vol. VI. 1906. Nos. 1–7. Jan.–July. *pp. 176.* [Suspended.]

The Publisher of all the volumes was Charles K. Reed, Worcester, Mass.

American Ornithology belongs to the better class of popular journals, and was profusely illustrated by both half-tone and colored engravings of decided merit. Although contributions to its columns were made chiefly by the Editors yet a number of well-known American ornithologists added their quota of observations, many of them of scientific value and interest.

AMERICAN OSPREY, THE.
1885. A monthly Magazine Devoted to Ornithology and Oology. *12mo.* Publisher, W. G. Talmage. *Plymouth, Conn.*

Vol. I. 1885. Nos. 1–2. May–June. *12 pp.* (All issued.)

Failing to secure second-class P.O. rates this short-lived periodical was merged with the *Agassiz Journal.* [Burns.]

AMERICAN OSPREY.
1890. *8vo.* Devoted to Ornithology and Oology. Published monthly. Unpaged. 4 pages to a number. Paul B. Haskell, ed. and pub. *Ashland, Ky.*

Vol. I. Nos. 1–12, 1890. Supplement to No. 7. About 50 pp. All issued.

Frank Burns describes it as a neat little sheet to which H. F. Andrews, B. S. Bowdish, and other well-known ornithologists contributed short articles.

AMERICAN PHILOSOPHICAL SOCIETY. *Philadelphia.*

1744–1833. Proceedings.

1838–*date.* Proceedings.

1769–1804. Transactions.

1818–*date.* Transactions. New Series. (Wanting.)

AMERICAN POULTRY ASSOCIATION.
1905. The American standard of perfection; a complete description of all recognized varieties of fowls, as revised by the American poultry association at its 28th annual meeting, at Rochester, New York, Nineteen hundred and four. *8vo. pp. (2)+290. 89 pl. 35 figs. T. of c. glossary.* [*Buffalo.*]

AMERICAN SCIENCE SERIES.
1889. . . . Zoology for high schools and colleges, by A. S. Packard. 7th ed., revised. *See* PACKARD, A. S.

AMERICAN SOCIETY OF MAMMALOGISTS. (Founded 1919.)
The organ of the Society is the well-known Journal of Mammalogy. Vol. I. *8vo,* 1919→ (q.v.). *Baltimore.*

1924–*date.* Monographs. No. 3 (1927?) is Animal life of the Carlsbad Cavern, by Vernon Bailey.

AMERICAN SOCIETY OF NATURALISTS, Records.
1883–*date.* From 1883–5 known as the Society of Naturalists of the Eastern United States.

AMERICAN SOCIETY OF ZOÖLOGISTS. *See* ANATOMICAL RECORD.

THE AMERICAN SPORTSMAN'S LIBRARY.
1903. The water-fowl family. *See* SANFORD, LEONARD CUTLER.

1902. Upland game birds. *See* SANDYS, EDWYN.

AMERICAN STANDARD OF PERFECTION. (Fowls.)
1905. *illust.*

AMHERST OF HACKNEY, MARY ROTHES MARGARET CECIL (born Tyssen-Amherst), *Baroness* [1857–1919].

1904. Bird notes from the Nile. By Lady William Cecil. *12mo. pp. xii+113. front. (col.). 12 pl. 27 figs. T. of c.* [*London.*]

These notes with but few exceptions are limited to those birds which are residents in Upper Egypt, and which the author saw above Luxor and in Nubia, although a few are mentioned during a short visit to Khartoum on the Blue Nile, and also on the White Nile above Omdurman. A list of species is given at the end of the volume, pp. 75–113, with English, Latin, and Arabic names, Resident or Migratory, locality and range, etc.

AMSTERDAM. *See* (K.) NEDERLANDSCH INSTITUT VAN WETENSCHAPPEN, etc.

AMSTERDAM. KONINKLIJKE AKADEMIE VAN WETENSCHAPPEN. Verslagen en Mededelingen, etc. (Afdeeling Natuurkunde).
1853–*date.*

ANALES D. ACADEMIA DE CIENCIAS MEDICAS, FISICAS Y NATURALES DE LA HABANA. 1865–*date.* *See* ACADEMIA DE CIENCIAS . . . HABANA. (Wanting.)

ANALES D. ACADEMIA MEXICANA DE CIENCIAS EXACTAS, FISICAS Y NATURALES. 1903–*date.* *See* ACADEMIA MEXICANA, etc.

ANALES DE CIENCIAS NATURALES (earlier **Anales de historia natural**).
1799–1804. Vols. 1–7 (all pub.). *Madrid.*

ANALES DE HISTORIA NATURAL. *See* ANALES DE CIENCIAS NATURALES, MADRID.

ANALES DE LA SOCIEDAD ESPAÑOLA DE HISTORIA NATURAL. *Madrid.*
1872–5. Vols. I–V.

ANALES DE ZOOLOGIA APLICADA. *Santiago de Chile.* **1914–*date.*** (Wanting.)

ANATOMICAL RECORD. (Includes **Proceedings of American Society of Zoologists.**)
1906–*date.* *Baltimore, Philadelphia.*

ANATOMICAL SOCIETY OF GREAT BRITAIN. *See* JOURNAL OF ANATOMY.

ANATOMISCHE HEFTE.
1891–1921. Bd. 1–59. Hefte 1–100. Contd. as the Zeitscrift f. d. gesamte Anatomie.

ANATOMISCHER ANZEIGER.
1886–*date.* *Jena.*

ANDERSEN, C. H.
1861. Zoologins Historia foere Linnaeus. *Lund.*

ANDERSEN, JOHANNES CARL [1873–].
1926. Bird-song and New Zealand song birds. *8vo. pp. (12)+215. front. 18 pl. T. of c. bibliogr. index.* *Auckland.*

Human song gives wide expression to the emotions of love, of praise, of joy, of good-fellowship. That which is true of human song is true, in a larger degree, of bird-song; nor does this ascribe to birds a greater aesthetic sense than has already been ascribed to them by those who maintain their song is purely sexual. This roughly sums up the views of the author of this interesting book on bird-song which should be read by all those interested in the subject. The present copy is subscriber's No. 77, autographed.

ANDERSEN, KNUD. **1912.** *See* BR. MUS. NAT. HIST.

ANDERSON, JOHANN [1674–1743].

1746. Nachrichten von Island, Grönland und der strasse Davis zum wahren nutzen der wissenschaften und der handlung. Mit kupfern, und einer nach den neuesten und in diesem werke angegebenen entdeckungen, genau eingerichteten landcharte. Nebst einem vorberichte von den lebensumständen des herrn verfassers. *20 cm. 15 pp. l., 328, [5] p. front. 4 fold. pl., fold. map.* 'Vorbericht' signed: Z * *. [i.e. J. D. Winckler]. *Hamburg.*

ANHANG: Dictionariolum (Danish-German-Eskimo); Appendix formularum loquendi usitatissimarum [etc.]: pp. 285–328.

This is the first edition of a fundamental work on Iceland and Greenland.

ANDERSON, JOHN [1833–1900].

1875. *See* BLYTH, E.

[**1876**]. On the osteology and pterylosis of the spoon-billed sandpiper (Eurynorhynchus pygmaeus, Linn.). *med. 4to. pp. 213–18. 1 pl. (No. 35). 2 figs.* [*London*].

Observations founded on a specimen procured at Chittagong in Eastern Bengal in 1856, which reveal only one important feature wherein this peculiar little bird structually differs from the genus Tringa, namely the singular expansion of the bill. (Excerpt from the *Linnaean Society Transactions*, 2nd Ser., Zoology, vol. 1, 1877.)

1878. Anatomical and zoological researches: comprising an account of the zoological results of the two expeditions to western Yunnan in 1868 and 1875; and a monograph of the two cetacean genera, *Platanista* and *Orcella*. *2 vols. 33 cm. illust., lxxxi* (i.e. 85) *pl.* (*part col., 2 fold.*). *fold. map.* Vol. 2: Plates. *London.*

See also WESTERN YUNNAN EXPEDITION.

1898–1907. Zoology of Egypt. *4 vols. 4to. London.*

A very important addition to our knowledge of Egyptian zoology. Vol. I is entirely devoted to Reptilia and Batrachia, 1898, by the editor, pp. 65+371, 60 col. pl., 1 map, figs. in text. Vol. II, Mammals, also by Anderson, but revised and completed by W. E. de Winton, pp. 17+374, 66 col. pl., 1 map and portrait, figs. in text, 1902. Vols. III and IV, Fishes of the Nile, by G. A. Boulenger, 1 vol. text, 1 vol. pl., pp. 51+578, 103 col. pl., 1 map, figs. in text. Vol. III was published at the expense of the Egyptian Government.

1898. Zoology of Egypt: Reptilia and Batrachia. *4to. pp. lxv, 371. 60 pl.* (*col.*). *1 map. text illust.*

Separately published first volume of Author's *Zoology of Egypt.*

1902. Zoology of Egypt: Mammalia. Rev. and completed by W. E. De Winton. *pp. 3 l., [v]–xvii, 374. front.* (*port.*). *illust. 66 pl.* (*part double, part col.*). *map. London.*

Separately published vol. II of the Author's *Zoology of Egypt.*

ANDERSON, P.

1913. Birds in the Island of Tiree.

ANDERSON, RUDOLPH MARTIN.

1919. The brant of the Atlantic coast. *sm. 8vo. pp. 4. Ottawa.*

A short discussion of the status of the Atlantic coast brant (*Branta bernicla glaucogastra*) which has caused considerable controversy among both sportsmen and ornithologists, owing partly to its remote breeding grounds where it meets the summer range of the Black Brant (*Branta nigricans*), this fact no doubt being responsible for the uncertainty existing as to its exact status. The present pamphlet appears under the auspices of the Dominion Parks Branch, Department of the Interior, Ottawa, Ont.

1929. *See* HANTZSCH, BERNHARD.

ANDERSONIAN NATURALISTS SOCIETY, GLASGOW, Annals. **1891**–*date.*

ANDERSSON, CHARLES JOHN [1827–67].

1856. Lake Ngami; or Explorations and discoveries during four years' wanderings in the wilds of south western Africa. Map. Illust. representing sporting adventures, subjects of natural history, devices for destroying wild animals, etc. 2nd ed. *roy. 8vo. pp. xviii+546. front. 15 pl.* (*lithogr.*). *1 map* (*fold.*). *40 figs. T. of c. 2 indexes. London.*

A record of the author's experiences during two expeditions in the wilds of the South-western parts of Africa, during the years 1850–4. References to birds are numerous and occur throughout the book, with a chapter on the natural history of the Ostrich, pp. 253–69, with plate depicting coursing young ostriches. The first edition appeared also in this same year, with an American issue in 1857.

1857. Lake Ngami; or explorations and discoveries. With an introductory letter by John Charles Fremont. *pp. (2)+v–xxiii+(1)+433. front. 15 pl. 40 figs. T. of c. New York.*

In this American edition the main text is the same as the first. The plates are inferior, not being lithographed, the paper is of a poorer quality, and no index or map is supplied.

1872. Notes on the birds of Damara Land and the adjacent countries of South-West Africa; ed. by J. H. Gurney. *8vo. pp. xlviii+394. front.* (*map col.*). *4 pl. bibliogr. index. London.*

A descriptive account compiled by Gurney from Andersson's notebooks of 428 species of birds in his collection at the time of his death.

1873. The lion and the elephant; ed. by L. Lloyd. *8vo. pp. 12+386. pl. London.*

A posthumous publication from the Author's notes.

1875. Notes on Travel in South Africa. Ed. by L. Lloyd. *8vo. London.*

Edited from notes by the author after his death.

ANDERSSON, K. A. **1905.** *See* NORDENSKJÖLD, N. O. G.

ANDERSSON, L. G.

n.d. Reptiles and batrachians (from Egypt). *illust. See also* CORNISH, C. J., 1903.

ANDERTON, BASIL [1864–], and **GIBSON,** W. H.

[**1901**]. Catalogue of the Bewick collection. *pp. (4)+iv+(2)+110. front.* (*portr.*). *9 pl.* (*1 portr.*). *4 figs. T. of c. index. Newcastle-upon-Tyne.*

This collection contains not only the works of Thomas Bewick, but also some excellent examples of John Bewick's skill, and that of some of Thomas Bewick's pupils too (Luke Clennell, William Hervey, etc.) are charmingly represented. In the Catalogue the arrangement of the books is, in its main outline, chronological. That is to say, Bewick's earliest works come first. The date of the first edition of each work is taken as a starting-point. There are then recorded in a single group all subsequent editions in the collection. When that group is finished, the Catalogue harks back to the first edition of the next earliest work; and so on. The frontispiece is a portrait of Thomas Bewick, the other being that of the donor of the Collection, John William Pease. There is also a beautiful woodcut of Bewick's masterpiece, 'The Chillingham Bull', 1789.

ANDRÉ, E.

1904. A Naturalist in the Guianas. With a Preface by J. Scott Keltie. port. of Author. 2 col. pl. of Birds by Keulemans. *8vo. map. 30 pl.*

A scarce and interesting work.

ANDREWS, CHARLES WILLIAM [1866–1924].
1899. On the extinct birds of Patagonia. 1. The skull and skeleton of Phororhacos inflatus Ameghino. *folio. pp. 32. illust. pl.* *London.* London Zoological Society Trans., vol. 15, pt. 3. Bound with Newton, Alfred. On a picture supposed to represent the Didine bird.

1900. A monograph of Christmas Island (Indian Ocean): physical features and geology. Descriptions of the fauna and flora by numerous contributors. *8vo. pp. xiii+(3)+337+(20). 21 pl. (col.). 1 map (col. fold.). 27 figs. T. of c. bibliogr. append. index.* *London.*
A monograph (British Museum) embracing the scientific results of the explorations in 1897–8. The birds, pp. 37–50, are by Mr. Bowdler Sharpe, accompanied with notes by Andrews, and four coloured plates by Keulemans.

1906. A descriptive catalogue of the Tertiary *Vertebrata* of the Fayum, Egypt. Based on the collection of the Egyptian government in the Geological museum, Cairo, and on the collection in the British museum (Natural history). *roy. 4to. pp. xxxvii+(1)+324+(52). front. 26 pl. 98 figs. 1 map. bibliogr. 2 indexes.* *London.*
The small portion relating to the class Aves will be found on pages 258–60, with three illustrations.

1910–1913. *See* BR. MUS. NAT. HIST.

ANDREWS, JAMES [1801?–76]. *See* [?1854–6] COTTON, JOHN. Beautiful birds.

ANDREWS, ROY CHAPMAN [1884–]; (**OSBORN,** HENRY FAIRFIELD).
1926. On the trail of ancient man; a narrative of the field work of the Central Asiatic expeditions, by Roy Chapman Andrews, SC. D., leader of the Central Asiatic expedition of the American museum of natural history in coöperation with 'Asia magazine', with an introduction and a chapter by Henry Fairfield Osborn. 58 photographs by J. B. Shackelford. *roy. 8vo. pp. xxiv+375. front. (portr.). 60 pl. 1 fig. (map). T. of c. index.* *New York.*
References to birds are infrequent but when occurring are of great interest. At the 'Flaming Cliffs' sand-grouse were in countless thousands, pp. 178–9; Fossil eggs of the extinct giant ostrich Struthiolithus were found, pp. 272 and 298.

ANECDOTES OF BIRDS, &c. *See* ANONYMOUS, 1809.

ANGLER'S NOTEBOOK AND NATURALIST'S RECORD. **1884–6.** *London.*

ANGLES, RAOUL. *See* VOYAGES, FRENCH. VOYAGE EN ISLANDE, 1838–52.

ANHALT. Dessauer Naturhistorischer Verein fuer Anhalt.
1840–73. Verhandlungen. 1–31 (all pub.)

ANIMAL LIFE AND WORLD OF NATURE.
1902–4. (Wanting.) *London.*

ANIMAL RESCUE LEAGUE. *Boston.*
1900–*date.* Report. *See also* OUR FOURFOOTED FRIENDS.

ANIMALS: PHOTOGRAPHS FROM LIFE IN ALL PARTS OF THE WORLD. *New York, Chicago.*
1898–1900. Continues Nature and Art.

ANIMALS' DEFENDER. *Boston.*
1895–1905. (Wanting.)

ANIMALS' DEFENDER AND ZOOPHILIST. (**National Anti-Vivisection Society.**)
1881–*date.* *London.*

ANIMALS' FRIEND. (**Animals' Friend Society.**) **1833–41.** *London.*

ANIMALS' FRIEND. **1894**–*date.* *London.*

ANIMAL WORLD. (**Royal Society for the Prevention of Cruelty to Animals.**) **1869**–*date.* *London.*

ANKENBRAND, L.
1912. Auslandische Stubenvögel. 2te. Auf. *illus.*

ANNABERG-BUCHHOLZER VEREIN FÜR NATURKUNDE.
1865–*date.* Bericht.

ANNAES DE SCIENCIAS NATURAES. *Oporto, Portugal.*
1894–1906. 1–10 (all pub.).

ANNALEN DER NATURGESCHICHTE. *Göttingen.*
1791. Succeeded by Beitraege zur Naturgeschichte.

ANNALEN DER NATURPHILOSOPHIE.
1901–21. (Wanting.) *Leipzig.*

ANNALEN DES K. K. NATURHIST. MUSEUMS. *Wien.*
1886–92. Bd. 1–35.

ANNALES D. BUDAPEST. Historico Naturalis Musei Nationalis Hungarici.
1903–22. *See* BUDAPEST. MAGYAR NEMZETI MÚZEUM.

ANNALES FRANÇAISES ET ÉTRANGÈRES D'ANATOMIE ET DE PHYSIOLOGIE, APPLIQUÉES À LA MÉDECINE ET À L'HISTOIRE NATURELLE. **1837–9.** *Paris.*

ANNALES GÉNÉRALES DES SCIENCES PHYSIQUES.
1819–21. Par J. B. Bory de St. Vincent, A. Drapiez, et J. B. Van Mons. Vols. 1–8. All published. With 130 plates, many being colored. Contains various Zoological papers. *Bruxelles.*

ANNALES D'HISTOIRE NATURELLE.
1908–13 (all pub.). *Paris.*

ANNALES MUSÉE DU CONGO. *See* ANNALES DU MUSÉE DU CONGO.

ANNALES DU MUSÉE DU CONGO PUBLIÉES PAR ORDRE DU SECRÉTAIRE D'ÉTAT. Série Zoologie. **1898**–*date.* *Bruxelles.*

ANNALES DU MUSÉE DU CONGO.
1906–7. Études sur la Faune Mammalogique du Congo, par Paul Matschie, Tome I. 5 pl. 2 col. (Zoologie, Série V); Contributions à la Faune du Congo, Tome I, Okapia, par Julien Fraipont. 4 col. pl. and 28 others in lithograph and heliogravure. *1 vol. roy. 4to.* *Bruxelles.*

ANNALES DU MUSÉE D'HISTOIRE NATURELLE DE MARSEILLES.
1882–*date*. (Wanting.)

ANNALES DE PALÉONTOLOGIE. 1906–*date*. *Paris*.

ANNALES DES SCIENCES NATURELLES. *Paris*.
1824–31. Zoologie. Series 1, with Atlas 1–12.
1834–1917. Zoologie. Series 2–9.
1918–*date*. Zoologie. Series 10.

ANNALES DE LA SOCIÉTÉ DES SCIENCES NATURELLES DE LA CHARENTE. *See* LA ROCHELLE, Annales de l'Académie des Sc. Nat. (Wanting.)

ANNALES DE LA SOCIÉTÉ ROYALE MALACOLOGIQUE DE BELGIQUE. *See* ANNALES DE LA SOCIÉTÉ ROYALE ZOOLOGIQUE DE BELGIQUE.

ANNALES DE LA SOCIÉTÉ ROYALE ZOOLOGIQUE DE BELGIQUE.
1863–1927. Tomes 1–57. Commenced as Annales de la Société royale malacologique de Belgique in 1863 and continued under the title given as above with the addition 'et malacologique'.

ANNALES DE LA SOCIÉTÉ ZOOLOGIQUE SUISSE ET DU MUSÉE D'HISTOIRE NATURELLE DE GENÈVE. *See* REVUE SUISSE DE ZOOLOGIE.

ANNALES DE L'UNIVERSITÉ DE LYON. Nouvelle Série.
1899–*date*. Fasc. 1–36.

ANNALI D. ACCADEMIA DEGLI ASPIRANTI NATURALISTI. 1843–87. *See* ACCADEMIA . . . NAPOLI. *Napoli*.

ANNALI D. MUSEO CIVICO DI STORIA NATURALE D. GENOVA.
1870–*date*. *See* GENOA.

ANNALI DEL MUSEO IMPERIALE DI FISICA E STORIA NATURALE DI FIRENZE.
1908. Vol. I. *4to*.

ANNALI DI STORIA NATURALE. *Bologna*.
1829–30. Continued as Nuovi Annali delle Scienze Naturali.

ANNALS OF THE ANDERSONIAN NATURALISTS' SOCIETY. 1891–*date*. *Glasgow*.

ANNALS OF APPLIED BIOLOGY; the official organ of the Association of economic biologists.
1914–*date*. Vols. 1–18. *illust. 4to*. *London*.

ANNALS AND MAGAZINE OF NATURAL HISTORY. 1837–*date*. *London*.
This very important, indeed indispensable, zoological periodical began its useful career as the *Magazine of Zoology and Botany*, Edinburgh, 1837, with Sir W. Jardine as chief editor. In 1838 it was merged with Sir W. J. Hooker's *Companion to the Botanical Magazine* and appeared as the *Annals of Natural History* (when the office of publication was transferred to London) until 1841 when its full title became *The Annals and Magazine of Natural History including Zoology, Botany, and Geology*. Sir W. Jardine ceased to be principal Editor in 1857, since which date it has been under the editorial management of a distinguished array of British naturalists.

ANNALS OF NATURAL HISTORY. *See* ANNALS AND MAGAZINE OF NATURAL HISTORY.

ANNALS OF NATURE. *See* RAFINESQUE-SCHMALTZ, C. S. 1820.

ANNALS OF PHILOSOPHY, NATURAL HISTORY, etc. 1801–4. (Wanting.) *London*.

ANNALS OF SCOTTISH NATURAL HISTORY. *Edinburgh*.
1892–1911. *See also* SCOTTISH NATURALIST.

ANNANDALE, THOMAS NELSON [1876–]; and **ROBINSON,** HERBERT C.
1903–7. *Fasciculi Malayenses*. Anthropological and zoological results of an expedition to Perak and the Siamese Malay states, 1901–2. 4 parts. *4to. col. illust.* (Wanting.) *London*.
A valuable contribution to Asiatic faunal history, as the result of an expedition to Perak (one of the Federated Malay States) and the Siamese Malay States in 1901–2. Part of vol. I (1903) is devoted to Mammals, by J. L. Bonhote; Batrachians and Reptiles, by G. A. Boulenger; Fishes, by J. Johnstone (Marine) and G. A. Boulenger (Freshwater). The Birds are described by W. R. O. Grant in vol. II.

ANNÉE BIOLOGIQUE. Comptes rendus annuels des travaux de biologie gén. publiés sous la direction de Yves Delage. 1895–*date*. *Paris*.

ANNOTATIONES ORNITHOLOGICAE ORIENTALIS. *Tokyo*.
1927–*date*. Vol. I, No. 1; No. 2, Jan. 1928.

ANNOTATIONES ZOOLOGICAE JAPONENSES. (Societas Zoologica Tokyonenses.)
1897–*date*. *Tokyo*.

ANNUAIRE DU MUSÉE ZOOLOGIQUE DE L'ACADÉMIE D. SCIENCES DE ST. PETERSBOURG.
1896–*date*. *8vo*. In German, French, English, and Russian. *St. Petersburgh*.
This important periodical is still published by the Soviet government with a slight change of title.

ANNUAL RECORD OF SCIENCE AND INDUSTRY. 1871–8. *New York*.

ANNUAL REPORT OF THE ACCLIMATISATION AND ORNITHOLOGICAL SOCIETY OF LONDON.
1861–8. Vols. I–VIII. [All issued?]
Although this Year Book is not exclusively devoted to Ornithology yet the larger number of its contributors and contributions deal with birds.

ANNUAL REPORT OF THE ALLEN BIRD CLUB.
1912–15 and continuation. Fourth Report. For 1915. pp. 37. Issued Jan. 1916. Part MS. with printed 'Suggested outline for the Observation of Birds', and a 'Reference List of Allen Club Bird Books and Magazines'. *Springfield, Mass.*
This periodical report shows the Allen Club to be an active and effective organization for the cultivation of Bird Study and Protection among its hundred-odd members as well as a propagandist society in Springfield.

ANNUAL REPORT OF THE BIRMINGHAM NATURAL HISTORY AND MICROSCOPICAL SOCIETY.

1872–94. All published. The *Reports* for 1886 and succeeding years were published in the *Midland Naturalist*. *See also* BIRMINGHAM NAT. HIST. AND MIC. SOCIETY.

ANNUAL REPORT OF THE DIVISION OF ORNITHOLOGY. COMMONWEALTH OF MASSACHUSETTS.

1909–*date*. *Illust. 8vo. Covers.* Mostly published separately, as part of the annual report of the Dept. of Agriculture. By Edward H. Forbush, Director. Reports I–XIII for 1909–21.
Boston, Mass.

[Report for 1920.] *47 pp. illust. T. of c.* Issued in 1921. Change of title to First Annual Report of the Division of Ornithology. Being a reprint of a part of the Annual Report of the Dept. of Agriculture for the year ending Nov. 30, 1920. [Reprint for 1921.] *41 pp. illust. T. of c.* Issued in 1922. Change of title to Annual Report of the Division of Ornithology. For the year 1921.

[ANNUAL] REPORT OF THE ROYAL SOCIETY FOR THE PROTECTION OF BIRDS.

1891–*date*. [Nos.] 1 to 30.

The first report (London, Oct. 1891. *12 pp. small 12mo*) was followed by others (*8vo. covers*) regularly every year until the present time. Besides business matters connected with the Society there are valuable contributions to the history of bird protection. See also *Bird Notes and News*; as well as *Proceedings of the Roy. Soc. or the Protection of Birds.*

ANONYMOUS. (Titles in alphabetical sequence.)

1746. Abbildungen von Elefanten. *9 figs. 1 sh. with text.*

1773. Aedonologie ou traité du Rossignol franc ou chanteur, etc. *Paris.*

This work is sometimes attributed to Arnault de Nobleville.

1809. Anecdotes of birds; or, Short accounts of their habits in a state of nature, collected from the best authors on natural history with figures engraved on wood. *fcap. 8vo. pp. xii+123. 9 figs. T. of c.* *London.*

The nine woodcuts are attributed to Bewick, the present copy being from the Mullens library.

1831. (The) Architecture of Birds. *12mo. illust.* Issued by the Society for the Diffusion of Useful Knowledge. *London.*

A semi-popular but well-written book chiefly on birds' nests.

1876. (The) Arctic world: its plants, animals and natural phenomena. With a historical sketch of Arctic discovery. *roy. 4to. pp. viii+9–276. front. 15 pl. 102 figs. T. of c. index.* *London and N.Y.*

In the above pages it has been the writer's object to bring together just such particulars as might enable the intelligent reader to realize for himself the true character of the world which extends around the North Pole. The ornithology of the region is treated on pages 96–106 with eight illustrations.

1823. (The) atlas of nature, being a graphic display of the most interesting subjects in the three kingdoms of nature for study and reference. *folio. pp. iv+40. 83 pl., mostly colored. T. of c.* *London.*

This descriptive atlas of natural history objects contains 13 colored figures (rather well done) of curious birds with their nests and eggs. These include the hoopoe, tailor-bird, skylark, etc.

1836. Aves Britannicae. A systematic Catalogue of British Birds. *8vo.* *Manchester.*

(? **1780**). Bāz-nāma. (Persian Manuscript.)

A concise Persian treatise on the diseases of the falcon, apparently abbreviated from a larger treatise. The name of the author, the date of composition, and the title of the original treatise from which the present one has been abbreviated, are not given. Apparently no other copy is known. The treatise gives a brief description of diseases, and several recipes for their treatment. Also many recipes are included for the general upkeep and hygiene of the falcon. The copy dates apparently from the end of the XVIIIth century, and has been transcribed somewhere in the Western part of India. The name of the copyist, the place of copying, etc., are not mentioned. Condition is fairly good, except for occasional wormholes. (W. I.)

ca. **1905.** Bāz-nāma. Tract on falconry. Persian MS. *8vo. Ff. 11.* Fragment. No jadwals.

1762. (The) bird fancier's necessary companion, and sure guide. Pts. 1–2. *2 vols. in 1. 12mo.* *London.*

CONTENTS: Pt. 1. Curious remarks on the nature, sex, management and diseases of English song-birds. 2. Easy way of breeding canary birds and the best method of 'chusing' and keeping them both for breeding and song.

1728. (The) Bird Fancier's Recreation. Being Curious remarks On the Nature of song-birds, with Choice instructions Concerning The Taking, Feeding, Breeding and Teaching them, and to know the Cock from the Hen. Also The Manner of taking Birds with Lime-Twigs, and the Preparations necessary thereto. With an account of the *Distemper*; incident to Song Birds, and the Method to cure them. *18mo. pp. 96.* Curious frontispiece. *London.*

An odd little book (from the Mullens library) full of shrewd observations on the care of cage-birds.

n.d. Bird Keeper's Guide and Companion, etc. *Illust. 12mo.* (Canaries.)

[*ca.* **1914**]. Birdland; the nature study book. *ob. 8vo.* [*5*] *pl.* (*col.*). [*Chicago.*]

In this book the entire heads of the different birds have been cut from the heavy board leaves and the circular pieces are of the proper size and bevel to fit into any of the holes. Intended especially for children, teaching them to find the correct heads for the different birds.

1905. Birds I have seen. *16mo. pp.* [*22*]*+169.* *New York.*

A pocket ornithological note-book, for jotting down impressions of any unfamiliar bird seen. The blank pages have the following printed headings for recording impressions, viz.: Date, where seen, appearance, habits, the female, its note, its nest, common and scientific name, family, and remarks. The first edition appeared in 1901.

1888. (The) birds of the Stonyhurst district. Reprinted from the *Stonyhurst Magazine*, July 1888. *8vo. pp. 14. 1 map* (*on cover*).

1851. (The) book of birds; intended for the amusement and instruction of young people. Illust. with 16 woodcuts. *16mo. pp. xiv+21–200. front. T. of c.* *Philadelphia.*

Popular accounts of 60 interesting birds, with illustrative anecdotes.

n.d. Book about Birds. *6 col. pl.*

1832. (A) book of ornithology for youth . . . *Boston.*

1848. Boy's Own Book of Sports, Birds and Animals. *Illust.* *N.Y.*

n.d. (The) British aviary, and bird keeper's companion; containing copious directions for propagating the breed of canaries: also, goldfinch and linnet mules. *16mo. pp. xii+13–80. front. 17 pl. index.* *London.*

[**ANONYMOUS.** (**Titles in alphabetical sequence.**) (contd.)]

1840. British Birds. *12mo. 24 col. pl.* *London.*

n.d. (The) British bird toy and painting book. *ob. 4to. no t.p. pp.* [*16*].

A useful guide for the amateur bird-illustrator.

1799. Canary Bird, a moral fiction, etc. *London.*

1836. (A) Catalogue of the Ashmolean Museum, etc. *1 vol. 4to. pp. 12, 188.* *Oxford.*

1829. Catalogue des oiseaux composant le cabinet de M. le Comte de Rioucour. *Nancy.*

? 1500. *Chin hsiu wan hua ku.* A classified encyclopedia, including material on all kinds of animals, fishes, insects, etc.; *Ch'ien chi* (1st part) chüan 36–7, and chüan 39; *Hou chi* (2nd part) chüan 39–40; published in the Ming Dynasty (1368–1644). *Size 24·2×16·1 cm.* [*G.*]

(*ca.* **1720–40.**) Collection d'oiseaux et d'animaux peints d'après Nature. *1 vol. 4to.*

A unique collection of water-colors by an unknown artist.

1813. (A) complete natural history; containing correct delineations of upwards of three hundred animals, in which are included Quadrupeds, birds, fishes, insects, etc. Exhibiting in a small compass a full description of the numerous creatures which compose the Animal Kingdom, with their varieties and peculiarities. Illustrated by accurate engravings on Wood, by the first artists. *8vo. pp. xii+13–336. 325 figs. T. of c.* *London.*

This work on Natural History has been specially written for the 'Fair Sex', all matter offensive to the eye of female modesty being omitted, so the introduction tells us. It is divided into four classes Quadrupeds—Birds—Fishes—Reptiles and Insects. The portion relating to birds is contained on pages 127–246, with 113 illustrations in the text.

1551. Contrafactur aller vierfüssigen Thier-Eygentliche und gantz artliche contrafactur (4 lines).
(Colophon:) Getruckt zu Strassburg durch Balthassar Becken Erben DMLI. *Sm. fol.* Gothic letter. 32 leaves, 61 large, virile woodcuts ($5\frac{3}{8}\times4\frac{1}{8}$ ins.) of animals. Bound by Riviere. No letterpress except full-page title and names of animals. On the recto of first leaf, in script by a contemporary hand: Franciscus Rossius Noëus, Chirurgus paris, 1551.

Excessively rare, not in British Museum, nor listed by Banks, Brunet, Graesse, nor in the *Catalogus Bibliothecae historico-naturalis.*

n.d. Domestic Habits of Birds. *82 illust. 8vo.*

1794. Faras-nāma. Persian manuscript. Colored illust. On the Horse. A.H. 1208. *8vo.* (?) *Shiraz.*

This unique MS. was purchased for the Blacker Library by W. Ivanow in North India and is described by him as of fine caligraphy. Not only are Eastern variants of *Equus* described and depicted but their diseases and modes of treatment are given and pictured.

1823. Faras-Nāma-i-Hisāmī. Persian manuscript. A short treatise in verse on the Horse, divided into 54 chapters. The original was composed in 847 A.H. (1443 A.D.).

It is apparently a unique copy, or at least quite unknown to bibliographers, as it is not signed and no information about it can be obtained from other catalogues. It is a well-written copy and the text is complete. (W. I.)

[*ca.* **1600.**] Ganse-Logia, Das ist der Gänse wunderbarliche Geburt, löbliches Leben etc. *18mo. n.d. n.p. pp. 72. illust. title.* Pt. 7 of 'Die neu-eröfnete lustige Schaubühne'. 'Gedruckt in diesem Jahr.'

This curious little treatise on the Goose—especially St. Martin's goose—is an exceedingly rare contribution to the subject.

n.d. Guernsey, Sark, etc.; a handbook for invalids, geologists, naturalists, archaeologists and others. *16mo. pp. 29.* *Guernsey.*

A view of the general character of the islands. A list of the birds will be found on pp. 28–9.

[*ca.* **1860.**] Habits of birds. *16mo. pp. xvi+379. 82 figs.* (*woodcuts*). *T. of c.* *London.*

Title-page mutilated, with no indication of author. The contents are arranged under the following headings: (1) Habits of cleanliness, (2) Birds solitary and gregarious, (3) Pairing, (4) Structure and colour of eggs, (5) Hatching, (6) Evolution of chick, (7) Sheltering, feeding, and training of young, (8) Songs and mimicry, (9) Longevity of birds.

1875. Half hours in woods and wilds; adventures of sport and travel. *illust. 12mo. pp. xi+(1)+308. front. 21 pl. 60 figs. T. of c.* *London.*

The scenes are mostly laid in North and South America, Africa, and Europe. Birds are referred to under the following headings: 'In the forests of the upper Amazon', pp. 68–102; 'In Britain and Everywhere', with rooks and their relations, pp. 105–22; 'In English Woods', with birds and their homes, pp. 125–46. The work forms one of the volumes in 'The Half Hour Library'.

1846. Handbuch der Ornithologie; hrsg. von einem Freunde der Ornithologie. *8vo. index. 4 pl. pp. vi+200.*
CONTENTS: Erster Theil: Das System und die Gattungen. [all pub.?] *Kopenhagen.*

A useful and popular manual, brief and correct, of which the Compiler has seen only the above first part. From the Godman library.

1865–6. Histoire Naturelle de Saône-et-Loire. Vols. I–II.

1829. *See* HUSĀMĪ. Persian MS. poem on the horse.

After **1873.** 'Ilāju'l-bahā'im. (Hindustani manuscript.)

A text-book of veterinary art, based on a European system; an official publication, composed by a commission, which was held originally at Allahabad, in 1873. The text is apparently a translation from English, and may be very useful for references concerning the interpretation of the native terminology.
Lithographed at Haydarabad in the Deccan; the date is not mentioned. *pp. 98.* (W. I.)

1888. 'Ilāju'l-bahā'im. (Hindustani lithograph.)

Another edition, or a revised version of the same official treatise on veterinary art as the preceding. Most probably it is based on a different translation of the original text, because the phraseology of the two does not often agree.
Lithographed at Lucknow, 1888. *pp. ii and 96.* (W. I.)

1674. Instruction pour élever, nourrir, dresser, instruire & penser toutes sortes de petits oyseaux de volière, que l'on tient en cage pour entendre chanter; avec un petit traité pour les maladies des chiens. *nar. 24to. pp.* [*12*]*+84. vignette. 4 figs.* (*tail pieces*). *T. of c.* *Paris.*

This small calf-bound volume on the methods of caring for songbirds and making them sing was published by Charles de Sercy, by privilege granted by the king of France, the author remaining anonymous. A chapter is also given to the treatment of canine diseases.

1835. (An) introduction to the study of birds; or, The elements of ornithology, on scientific principles, with a particular notice of the birds mentioned in Scripture. *8vo. pp. viii+584. illust. in the text. T. of c.* *London.*

1830. (The) Journal of a Naturalist. *8vo.* 3rd ed. *London.*

A delightful volume written, as the unknown author tells us, under the influence of Gilbert White.

[**ANONYMOUS.** (**Titles in alphabetical sequence.**) (contd.)]

1829. Khayl-nāma. (Persian manuscript.)

A detailed treatise on the selection of a good horse, its upkeep and hygiene, and on treatment of its diseases. The book is divided into two *kitābs*, or books, the first subdivided into 40, and the second into 60 short *bābs* (chapters). Unfortunately, the preface is missing in this copy, and there is no indication of the author or of the date of composition. It seems that there are no other copies of this book in the libraries with which I am acquainted. It is a good copy, in a fairly good state of preservation. It has been transcribed by the same scribe as the Hazin, 1829—in Rabi' I 1245 A.H., or Sept. 1829. (W. I.)

ca. **1580.** Kitabu'l-haywan. A zoological dictionary. Arabic manuscript.

The copy is incomplete both at beginning and end, so that the exact date of its original composition and the name of the author cannot be determined. As it is distinctly different from other works of the kind written in the same period it is probably unknown to cataloguers and, consequently, very rare. (W. I.)

n.d. Lebensbilder aus des Tierwelt Europas. Bd. II. Saugethiere; Vögel Band II and Bd. IV, Antilopen, etc.

n.d. [List of British Birds.] Large folio sheet, printed on one side. Indigenous and visitant species with both specific and systematic names. Loosely inserted in Seebohm's *History of British Birds*, 1883. Attributed to Bowdler Sharpe.

n.d. London Zoological Society. List of abbreviations with titles of journals containing papers dealing with matters of zoological importance. *pp. 42.* *London.*

A valuable list for the use of libraries on zoology.

n.d. Marvels of the Universe. (Introd. by Lord Avebury.) *2 vols. 4to. 36 pl.*

1758. Mémoire instructif sur la manière de rassembler, de préparer . . . les divers curiosités d'histoire naturelle. *8vo. pp. 235. 24 folding cop. pl. (6 birds; 7 fishes and sea invertebrate animals).* Published by J. M. Bruyset. *Lyons.*

Well-illustrated manual on the preparation of birds, fishes, and other sea animals for preservation in natural history collections.

[**1847**]. Migratory birds; or, such as visit Britain at different seasons of the year. A guide to their favourite places of resort, with their natural history, songs, and the benefits which their migrations confer on mankind. *16mo. pp. iv+5–64. 1 fig. (vignette.) T. of c.* *London.*

This little work comprises short accounts of the birds that arrive in the British Isles during March, April, and May, pp. 5–50; the autumn and winter birds of passage (September), pp. 50–6, and winter birds of passage, comprising waders and swimmers, pp. 56–64.

1720? Miscelania curiosa de avibus. Of birds. *sq. 8vo. pp. 122. 95 pl.* MSS. in English and Latin with original drawings of English and American birds.

This curious manuscript describes, with the help of Ray's *Synopsis* and other contemporary sources (quoted by the unknown author and artist) over 200 species, with colored drawings of 98. It is in the E.S.W. Library and may be of interest to research scholars. Internal evidence indicates its production in the beginning of the eighteenth century.

[**1822?**]. [Natural history. A miscellaneous book of natural history in manuscript, containing descriptions of birds and method of preserving their skins; of preserving shells, plants, minerals, and insects, also historical notices on falconry and falcons, etc.] *cr. folio. pp. 233. 3 figs. index.*

1793. The natural history of birds, compiled from the best authorities, and illustrated by a great variety of copper plates, comprising near one hundred figures, Accurately drawn from Nature, and beautifully engraved. *12mo. pp. xii+204. 26 pl.* *London.*

The plates in this small and popular volume are exceptionally well done. There are several editions of this work in the libraries of McGill, one at least (1791) in 3 vols. with col. pl.

1815. (The) natural history of birds, from the works of the best authors, antient and modern. Embellished with numerous plates, accurately coloured from nature. *2 vols. 8vo.* Vol. I, *pp. xxxv+(1)+586. 69 pl. (col.).* Vol. II, *pp. xv+(1)+700. 83 pl. (col.). T. of c.* *Bungay.*

A series of descriptions of birds from all countries, with notes on habits, etc., under Vernacular names, and arranged by so-called tribes. The plates are hand-coloured, although hardly accurately. There is a London edition of the same year, with a slightly different title.

1840. Natural history of birds; their architecture, habits, and faculties, with numerous engravings. *12mo. pp. [8]+308. T. of c.* Cuts in text. (Harper's Family library. 1841–8. vol. 98.) *New York.*

This juvenile manual is an amended American edition of a similar work originally published by the British Society for the Diffusion of Useful Knowledge. It is signed H. and B. Another (identical) edition was published in 1845.

[*ca.* **1852**]. (The) natural history of land birds. *12mo. pp. 62. pl.* *Cincinnati.*

This juvenile book is illustrated with cuts evidently borrowed from Nuttall's *Manual*.

1821. Natural History of remarkable Birds, etc.

1754. (A) natural history of singing birds bred in Britain. *See* ALBIN, E.

The E.S.W. Library has another edition (several were published) dated, Edin. 1776—all attributed to E. Albin.

1740. Nature Displayed, being Discourses on - - - Fish, Birds, plants, etc. Edited (translated) by S. Humphreys. *3 vols.*

This title is attributed to Noël Antoine Pluche (q.v.).

n.d. (Die) Naturgeschichte in getreuen Abbildungen und mit ausführlicher Beschreibung derselben. Vögel. *4to. 183 pl. (col. including engr. title-page).* *Halberstadt.*

The second volume only of a work on natural history, consisting of 183 colored plates of the birds of the world. There is no clue to the date nor to the author. The plates are hand-colored. At Halberstadt where it was published there is a celebrated ornithological museum.

1740. Naturgeschichte in Mahlerey Bestehend. *2 vols. ob. 8vo.* Many original oil-paintings of animals and birds with German descriptions.

1866. (Die) Nester und Eier der Vögel; mit 304 grösstentheils nach der Natur entworsenen und genau kolorirten Abbildungen. Neue Ausgabe. *sq. folio. pp. (2)+24. 8 pl. (col.). 26 figs.* *Stuttgart.*

Colored figures of birds' eggs with some nests. The introduction contains an account of the gross features of the development of the chick in the egg.

ca. **1780.** New British Bird Fancier, etc. *8vo.*

1745. (A) new general history of birds; including the methods of breeding, managing, and teaching of song birds. *2 vols. 18mo.* *London.*

'Illustrated with about 400 figures, copied from the originals.'

Vol. I, *pp. i–xii, 1 l., pp. 13–340, 171 woodcuts*

[**ANONYMOUS. (Titles in alphabetical sequence.)** (contd.)]

(*portrs. of birds*) *and numerous decorations.* Vol. II, *pp. i–viii, 3–314, 3 ll.* (*index*, begun on p. 314), *182 woodcuts* (*portrs. of birds*) *and numerous decorations.*

There are several editions and variant printings of this curious work on the habits and other characteristics of many birds. The Ayer-Zimmer *Catalogue* describes a Birmingham edition published in 1743.

1791–2. A new system of the natural history of quadrupeds, birds, fishes and insects. *3 vols. 8vo.* Vol. I, *pp. xviii+(2)+586+(1). 46 pl. T. of c.* Vol. II, *pp. vii+(1)+568. 56 pl. T. of c.* Vol. III, *pp. viii+577+(2). 44 pl. T. of c. Edinburgh.*

A work largely compiled from the writings of others. The portion relating to birds will be found in vol. II, pp. 1–568, with 56 plates.

1801. Notice des principaux objets d'histoire naturelle, etc. *See* JAUME-SAINT-HILAIRE.

n.d. (Les) oiseaux, description des principales espèces des oiseaux d'Europe; dessins et gravures de Pauquet frères. *4to. pp. 32. T. of c. 8 col. pl. 18 figs. in the text. Paris.*

An attempt in a few pages to describe and depict the genera and species of the principal European birds. The work has little scientific value, although some of the colored plates are good.

1855. Ornithological synonimy; an anonymous manuscript. *4to.* [*434*] *fol.*

An old manuscript by some unknown English ornithologist dealing with the *Vulturidae, Falconidae,* and *Strigidae.*

1767–73. Ornithologia, Methodice digesta, atque Iconibus æneis ad vivum illuminatis ornata [Latine et Italice a Xavier Manetti, Laurentio Lorenzi, et Violante Vanni]; Vols. I–V. 600 coloured plates, portrait of Gerini after Zocchi, vignettes, etc. *roy. folio. Florentiæ.*

A very valuable collection of early plates from treatises by several well-known naturalists.

1743–5. Ornithologia nova; or, A new general history of birds, extracted from the best authorities in various languages both antient and modern. With Remarks and proper observations upon the different species and kinds throughout the known world, from the most curious Naturalists, Virtuosos and travellers. Containing, a description of a great number of curious and uncommon birds, found in different parts of the Universe. Illustrated with about four hundred figures, copied from the best originals. *2 vols. 16 mo.* Vol. I, *pp. xii+(2)+13–340. 257 figs.* Vol. II, *pp. (2)+viii+3–314+(6). 250 figs. index. Birmingham.*

A curious little work, describing the appearance and habits of various birds. Many of the accounts are based on travellers' tales, whilst others are from more reliable sources. The 507 woodcuts are very quaint and crude.

1780. Ornithotrophie artificièle, etc. *Paris.*

(1840). The Parrot-keeper's Guide. By an experienced Dealer. *pp. 48. small 8vo. 6 col. and 3 plain plates. index. London.*

1815. Recreations in natural history; or, Popular sketches of British quadrupeds: describing their nature, habits, and dispositions, and interspersed with original anecdotes; embellished with numerous engravings and wood cuts from portraits of living animals. *4to. illust. pl. pp. 16+368.* After L. Clennell. *London.*

1835. Saydiyya. Persian manuscript. *sm. 4to. 21 folios.*

A short, anonymous treatise on hunting from the religious (Shihite) viewpoint. Incidentally it furnishes a list of birds, mammals, insects, and other animals in Arabic, Persian, and Hindi. (W. I.)

1828. Sketches of Birds by Japanese Artists (unsigned) of the Old Kano School. (Arranged in European order.) Vols. II and IV.

(? 1785.) Tibb-i-aspān. (Hindustani manuscript.)

A short versified treatise on the treatment of diseases of the horse. It is divided irregularly into a large number of short paragraphs which have each a special heading. The name of the author and the date of composition are not mentioned. Most probably the work was composed towards the end of the XVIIIth, or beginning of the XIXth century, judging from its style. A fairly good and well preserved copy. (W. I.)

ca. **1885.** Tibbu'l-ḥaywān. Arabic manuscript on veterinary Medicine and Surgery.

Useful for determining the meaning of terms one meets with in Arabic and Persian works on zoology. As there is no proper introduction, the author's name, date of composition, and formal title are not mentioned. The copy (or original) is not found in the usual catalogues, so that the treatise may be unique. There is a table of contents at the end of the book. The caligraphy is good. (W. I.)

1920. Tota Kahani; [or Indian folklore story of a parrot]. *8vo. pp. 104+1. Lahore.*

A translation into Urdu of a famous series of Persian folk-lore stories, akin to the Arabian Nights Entertainments, in which a wise old parrot gives his experience of life in and out of the jungle. There are several editions, including an old Persian MS. beautifully illustrated, of this volume.

1925. Tota Maina; [or Indian folklore tales of the parrot and the Mynah]. *8vo. pp. 168. Lahore.*

Folklore tales of the Mynah and Parrot, familiar to most North Indian and Persian peoples, with whom they were very popular. The present edition is printed in Urdu.

1765. A treatise on domestic pigeons; comprehending all the different species known in England . . . Carefully compiled from the best authors. To which is added, a most ample description of that celebrated and beautiful pigeon called the almond tumbler. *post 8vo. pp. xvi+144. front. 13 pl. 75 figs.* (*head and tail pieces*). *London.*

The *Columbarium* of Moore (1735) amplified by a practical fancier. It embraces everything necessary for the successful breeding and rearing of pigeons in general. The book is said to be extremely scarce according to a pencil note on the fly-leaf.

1864. Unterricht f. Liebhaber der Kanarienvögel. *Quedlinburg.*

[*ca.* **1700.** Uccellini; a book of Italian water-color drawings of birds.] *folio. 105 pl.*

n.d. Wild Birds at Home. *2 vols. 12mo.* First and Second Series.

1923. (Die) Zweisprach der Tiere (Dialogus creaturarum). *8vo. pp. 78. 38 woodcuts in text. T. of c. München.*

A modern edition of the well-known *Physiologus* or *Dialogus creaturarum*, that in the early middle ages formed one of the few manuscripts on birds and other animals. These fables, by an unknown author, have been frequently copied, the first printed edition being published by Peter van Leu at Houda, Holland, in 1480. The present volume is number 27 of a 550 limited printing translated from Latin into German, with the woodcuts of the early Dutch edition. There are many dialogues in which birds take part, thus illustrating their habits and establishing their identity.

1854–60. (The) zones of the earth; productions of the zones. *folio. 2 vols. pl. London.*

CONTENTS: vol. [1]. Text. [2]. Plates.

ANSLIJN, NICOLAAS [1777–1838].

1822. Systematische beschrijving der Vogelen. *pp. 596.* *Leyden.*

This is a rare treatise not listed in the *Cat. Br. Mus.* (*Nat. Hist.*), and probably a forerunner of the author's two-volume treatise on the vertebrates of Holland.

1838. Afbeeldingen van Niederlandshe dieren. *2 vols. 8vo. 316 col. pl., of which 133 are of birds.* *Leyden.*

An earlier (first ?) edition of this excellent treatise on the vertebrates of Holland was published in 1830. The plates are hand-colored.

ANTARCTIC EXPED. (BR. MUS.) ZOOLOGY. *See* NATIONAL ANTARCTIC EXPED.

ANTHONY, H. E., and **others.**

1917. Mammals of America; technical editor, H. E. Anthony . . . artists, Carl Rungius Belmore Browne, George A. King. *New York, The University society inc.*

1928. Field Book of North American Mammals. *12mo. pp. 625. 32 col. pl. 175 illust.* *N.Y.*

The author, well known as the Curator of Mammals in the American Museum of Natural History, systematically describes every mammal north of the Rio Grande, and gives an account of its habits, geographical ranges, etc.

1929. Field Book of North American Mammals, *with 32 colored plates, and 173 text illust. cr. 8vo. map.* *New York.*

Another printing of an earlier edition.

ANTHONY, R. *See* FRANCE. EXPÉDITION ANTARCTIQUE, (1906–8).

ANTHROPOLOGIE. 1890–*date.* *Paris.*

ANTINORI, ORAZIO, MARCHESE [1811–82].

1864. Catalogo descrittivo di una collezione di uccelli nell' interno dell' Africa centrale nord dal maggio 1859 al luglio 1861. *8vo. pp. 30+117.* *Milano.*

In this important catalogue of birds found in north-central Africa several species new to science are described. The present copy is from the Godman library.

1873. Viaggio dei Signori O. Antinori, O. Beccari ed A. Issel nel mar Rosso, nel territorio dei Bogos e regioni circostanti durante gli anni 1870–71. Catalogo degli uccelli compilato per cura di O. Antinori e T. Salvadori. *4to. pp. 161. pl.* *Genova.*

ANTONIUS LE GRAND.

1673. Historia naturae, variis experimentis et ratiociniis elucidata. *pp. 38+416.* *Londonini.*

This rare treatise is in the Dean Adams Library (McGill). Not listed in the *B.M. Nat. Hist. Cat.*

ANUARIO D. ACADEMIA MEXICANA DE CIENCIAS EXACTAS, FISICAS Y NATURALES. 1895–9. *See* ACADEMIA MEXICANA, etc.

ANZEIGEBLATT DER ORNITHOLOG. MONATSSCHRIFT DES DEUTSCHEN VEREINS ZUM SCHUTZE DER VOGELWELT. *See also* MONATSSCHRIFT DES SACHISCH-THÜRINGISCHEN VEREINS, etc.

The E.S.W. Library has 1897–1903, 12 nos. in each. With *1901, No. 3,* the title was changed to *Anzeigen-Beilage.* Table of contents and volume indices. Many colored and other illustrations. That well conducted journal, the *Ornithologische Monatsschrift,* published several supplemental periodicals and serials. The title of the chief of these was the *Anzeigeblatt.* This was issued in 12 (monthly) numbers per volume (annum), and printed in Gothic type with separate pagination, title-wrapper, and numbering. It was of the same size and excellent quality as the *Monatsschrift,* was well illustrated both in colors and black and white, and contained many valuable contributions to science by well-known ornithologists. The Compiler has so far seen only the following *separate* issues:
1897. Nos. 1–12. *364 pp. T. of c. col. illust. List of Members.*
1898. Nos. 1–12. *376 pp. T. of c. col. illust. index.*
1899. Nos. 1–12. *380 pp. T. of c. col. illust. index.*
1900. Nos. 1–12. *496 pp. T. of c. Many col. illust.*
1901. Nos. 1–12. *434 pp. T. of c. Many col. illust. index.*
Title of No. 3 and subsequent numbers changed to *Anzeigen-Beilage.*
1902. Nos. 1–12. *536 pp. T. of c. col. illust. index.*
1903. Nos. 1–12. *506 pp. T. of c. Many colored and other illust.*

ANZEIGEN-BEILAGE.

Continuation of the Anzeigeblatt der Ornitholog. Monatsschrift des Deutschen Vereins zum Schutze der Vogelwelt (q.v.).

ANZEIGER FÜR BOTANIK UND ZOOLOGIE.

? **1896**–*date.* No 33 bears date 1929. Published as a dealer's list by Oswald Weigel, Königstr. *Leipzig.*

A useful priced catalogue of titles in all departments of natural history.

ANZEIGER F.D. GES. NATURWISSENSCHAFT.

1817–22. 1–5 (all pub.). *See* BERN.

ANZEIGER DER ORNITHOLOGISCHEN GESELLSCHAFT IN BAYERN.

Beiblatt to the Verhandlungen d. Ornithol. Gesellsch. in Bayern. (q.v.); also the Jahresbericht des Ornith. Vereins München. Nos. 1 and 2. 1919. *14 pp.* No. 3. 1920. No. 4. March 1921. No. 5. Dec. 1921. *8vo.* *München.*

Although this magazine is officially described as 'ein unregelmässig erscheinendes Beiblatt' of the 'Verhandlungen' it is issued quite independently of the latter and contains many scientific contributions (Stresemann, Hellmayr et al) apart from its office as a record of the business meetings of the Society.

APGAR, AUSTIN CRAIG [1838–1910].

1893. Pocket key of the birds of the northern United States, east of the Rocky Mountains. *sm. 8vo. pp. (4)+5–63. glossary. index.* *Trenton, N.J.*

The title sufficiently covers the description, the glossary giving the meaning of the minimum technical terms used. The present copy is an autographed presentation from the author.

1898. Birds of the United States east of the Rocky Mountains, a manual for the identification of species in hand or in the bush. *8vo. pp. 415. 70 figs. and numerous line drawings. T. of c. glossary. index.* *New York.*

A work for students and beginners, with short descriptions of the species, keys for their determination in the field, and a glossary of technical terms. The half-tone illustrations as a rule are poor, in fact unrecognizable in some cases.

APLIN, BENJAMIN D'OYLY. *See* APLIN, F. C.

APLIN, F. C.; **APLIN,** Rev. B. D'O. and **APLIN,** OLIVER V.

1882. A list of the birds of the Banbury district. *8vo. pp. 177.* *Banbury.*

Forming the first publication of the Banbury Natural History Society. The annotated list comprises some 180 species.

APLIN, OLIVER VERNON [1858–].

1882. *See* APLIN, F. C.

1889. The birds of Oxfordshire. With a map. *8vo. pp. vii+(1)+217. front. (col.). 1 map (col. fold.). addend. glossary. index.* *Oxford.*

A well annotated list of 242 species, in addition to six species the occurrence of which is considered doubtful. A topographical and historical chapter precedes the bird matter.

1898. Pygopodes. *See* BUTLER, A.G. British birds, &c. Vol. vi.

APOSTOLIDOS, NIKOLAOS CHRISTO.
1885. (In modern Greek.) Das Tierreich, Naturgesch. d. Säugetiere, Vögel, Kriechtiere, etc. (The Animal Kingdom, Natural hist. of Mammals, Birds, etc.) *4to. 90 col. pl.* *Athens.*

APPUN, C. F.
1871. Unter den Tropen, etc. *2 vols. 8vo.* (Wanting.) *Jena.*

APTERYX.
1905. A New England quarterly of natural history. Vol. 1, nos. 1–3; Jan.–July 1905 (all pub.). *3 nos. in 1 vol. 23½ cm. ix pl., 1 col. (incl. double map).* Pub. quarterly in the interests of the Roger Williams park museum of Providence, R.I. *Providence, R.I.*

This promising periodical eventually failed because of lack of support from the municipal government.

APUNTES DE HISTORIA NATURAL.
1909–10? *Buenos Aires.*

AQLU'SH-SHU'UR, by NIZAMU'D-DIN.
1914. Hindustani natural history encyclopedia. Lithograph. *pp. 490.* *Lucknow.*

AQUATIC LIFE. 1915–*date*. (Wanting.) *Philadelphia.*

AQUATIC MONTHLY AND NAUTICAL REVIEW. 1872–81. *New York.*

Devoted to the interests of all pastimes (and natural history) by field and water.

AQUILA.
A Magyar Ornithologiai Központ Folyóirata. Periodical of Ornithology. Journal pour Ornithologie. Zeitschrift für Ornithologie. Edited for the Hungarian Ornithological Central-Bureau (founded in 1893) by Herman Ottó. *4to. Pictured tinted wrappers. Quarterly.* *Budapest.*

1894–*date*.
Published in both Hungarian and German—two parallel columns to a page. Papers occasionally published in French or English. Collation of the first 28 vols. follows.

Jahrg. I. 1894. Motto: In excelso figit nidum Regina avium. Nos. 1 and 2, July; Nos. 3 and 4, Dec. *188+36 pp. col. pl. index.*

Jahrg. II. 1895. Nos. 1 and 2, April; Nos. 3 and 4, Dec. *201 pp. illust. index.*

Jahrg. III. 1896. Nos. 1–2, May; Nos. 3–4, Dec. *252 pp. two col. pl.*

Jahrg. IV. 1897. Nos. 1–3, June; No. 4, Nov. *288 pp. index. col. pl. and figs.*

Jahrg. V. 1898. Nos. 1–3, March; No. 4, Nov. *311 pp. index. col. pl. and figs.*

Jahrg. VI. 1899. Nos. 1–2, May; No. 3, Aug.; No. 4, Dec. *425 pp. index. col. pl. and figs.*

Jahrg. IX. 1902. Nos. 1–4, Aug. *272 pp. index. col. pl. and figs.* Supplement. *28 pp.*

Jahrg. X. 1903.

Jahrg. XI. 1904. Nos. 1–4, Dec. *404 pp. index. Many col. pl. and figs.* Motto omitted.

Jahrg. XII. 1905. Nos. 1–4, Dec. *387 pp. index. tables and charts.*

Jahrg. XIII. 1906. Nos. 1–4, Dec. *274 pp. index. col. pl. and figs.*

Jahrg. XIV. 1907. Nos. 1–4, Dec. *380 pp. index. plates and figs.*

Jahrg. XV. 1908. Nos. 1–4, Dec. *360 pp. index. plates and figs.*

Jahrg. XVI. 1909. Nos. 1–4, Dec. *359 pp. index. plates and figs.*

Jahrg. XVII. 1910. Nos. 1–4, Dec. *305 pp. index. col. pl. and figs.*

Jahrg. XVIII. 1911. Nos. 1–4, Dec. *447 pp. index. col. pl. and figs.*

Jahrg. XIX. 1912. Nos. 1–4, Dec. *504 pp. index. col. pl. and figs.*

Jahrg. XX. 1913. Nos. 1–4, Dec. *585 pp. index. col. pl. and figs.*

Jahrg. XXI. 1914. Nos. 1–4, Dec. *299 pp. index. plates and figs.* Death of the Editor and Founder, Ottó Herman.

Jahrg. XXII. 1915. Issued as a single vol. German text follows the Hungarian. *437 pp. 1 pl. and 27 figs.* Editor: Titus Csörgey. Full index pub. in 1918.

Jahrg. XXIII. 1916. *599 pp. index. 2 col. pl. and 9 figs. in the text.* Editor: Stefan Chernel.

Jahrg. XXIV. 1917. *321 pp. index. 2 pl. and 21 figs. in text.* Full index to Jahrg. 1915, pub. as supplement. *16 pp.*

Jahrg. XXV. 1918. *236 pp. index. 1 pl. and 23 figs. in text.* Two supplements. *76+69 pp.*

Jahrg. XXVI. 1919. *164 pp. index. portrait.*

Jahrg. XXVII. 1920. [Issued Mar. 15, 1921.] *304 pp. plates and 1 text illust.*

Jahrg. (Tom.) XXVIII. 1921. *245 pp. index. figs. in text.* And continuation.

This well-edited magazine, belonging to the highest class of scientific journalism, survived the hard struggle of the World War and continues to appear, although in somewhat belated fashion. The volumes are well illustrated and the contributions are chiefly from the pens of Hungarian writers, although numerous papers have been written by others. Besides the editors were Blasius, C. Floericke, Frivaldsky, Fürbringer, Kleinschmidt, Schenk, Tschusi zu Schmidhofen, and numerous others of like rank.

ARBEITEN DER BIOL. STATION ZU HOSSINO, etc.
1924–6. *3 vols.* Text Russian and German.

ARBEITEN A. D. ZOOLOG. INSTITUT ZU GRAZ.
1886–1911. Vols. 1–9 (all pub.). *München.*

ARBEITEN AUS DEM ZOOLOGISCHEN INSTITUT DER UNIVERSITÄT WIEN UND DER ZOOLOGISCHEN STATION IN TRIEST. 1878–1915. *Vienna.*

ARBEITEN ZOOL. INST. WÜRZBURG.
See WÜRZBURG. ZOOLOGISCH-ZOOTOMISCHES INSTITUT.

ARBEITEN AUS DEM ZOOLOGISCH. U. ZOOTOMISCHEN KABINET D. UNIV. ST. PETERSBURG.
1890–1911. Nos. 2–21. Mit vielen Taf.
St. Petersburg.

ARBOLEYA, J. G. DE.
1852. Manual de la Isla de Cuba. *1 vol. 18mo.* *Havana.*

ARCANA: or, **THE MUSEUM OF NATURAL HISTORY.** *London.*
1810–11. *See* PERRY, GEORGE.

ARCANA NATURAE. 1859. (Wanting.) *Paris.*

ARCHIV F. BIONTOLOGIE. (**Gesellschaft f. naturf. Freunde zu Berlin.**) *Berlin.*
1906–*date* (suspended 1909–12).

ARCHIV FÜR ENTWICKELUNGSMECHANIK DER ORGANISMEN. *Leipzig.*
1894–1923. Merged into Archiv für mikros. anat. und entwick., etc. (Wanting.)

ARCHIV FÜR GEFLÜGELKUNDE. MONATSSCHR. F. FÖRDERUNG, etc.
1926–*date.* Edited by Dr. Otto Bartsch, Berlin-Niederschönhausen, Kaiser Wilhelmstr. 66, Germany.

A semi-popular periodical devoted mainly to barnyard fowls.

ARCHIV F. D. GESCHICHTE D. NATURWISSENSCHAFTEN U. DER TECHNIK.
1909–18. Vols. 1–8.

ARCHIV FÜR HYDROBIOLOGIE UND PLANKTONKUNDE. *Berlin, Stuttgart.*
1893–1905. As Forschungs. aus d. Biologisch. Station zu Plön.

1905–*date.* New series. (Wanting.)

ARCHIV FÖR MATHEMATIK OG NATURVIDENSKAB. 1876–*date.* *Oslo.*

ARCHIV FÜR MIKROSKOPISCHE ANATOMIE UND ENTWICKLUNGSMECHANIK. *Bonn.*
1865–*date.* Continuation of Archiv für Entwick. der Organismen.

ARCHIV FÜR NATURGESCHICHTE. *Berlin.*
1835–1911. Continued in two sections.

1912–*date.* Abteilung A: Original Arbeiten.

1912–*date.* Abteilung B: Jahresberichte.

1835–*date.* Herausgegeben von . . . A. F. A. Wiegmann, (and afterwards) W. F. Erichson, F. H. Troschel, E. von Martens, and F. Hilgendorf.

1860. Register zu den ersten fünfundzwanzig Jahrgangen.

1895. Register zu dem 26. bis 60. Jahrgang. *8vo.* *Berlin.*

One of the longest established and most important of the periodicals devoted to natural history. Invaluable to students of vertebrate zoology.

ARCHIV DER NATURGESCHICHTE.
1827–30. (Wanting.) *Naumburg.*

ARCHIV FÜR NATUR, KUNST, WISSENSCHAFT UND LEBEN.
1841–8. Bd. 9–16. Jrg. *Braunschweig.*

ARCHIV F. DIE NATURKUNDE EESTIS. *Tartu.*
1854–1905? as Archiv für die Naturkunde Liv-, Ehst- und Kurlands; **1920–3** Archiv für die Naturkunde des Ostbaltikums. Suspended **1906–19.**

1854. First series. Geologica, chemica et physica. Vols. 1–9. Pt. 5? as Mineralogische Wissenschaften, nebst Chemie, Physik, etc.

1859. Second series. Biologische naturkunde.

ARCHIV FÜR DIE NATURKUNDE LIV-, EEST- UND KURLANDS. *See* ARCHIV FÜR DIE NATURKUNDE EESTIS.

ARCHIV FÜR DIE NATURKUNDE DES OSTBALTIKUMS. *See* ARCHIV FÜR DIE NATURKUNDE EESTIS.

ARCHIV FÜR NATURWISSENSCHAFT. *See* KÖNIGSBERGER ARCHIV FÜR NATURWISSENSCHAFTEN UND MATHEMATIK. *Königsberg.*

ARCHIV FÜR DIE NATURWISSENSCHAFTLICHE LANDESDURCHFORSCHUNG VON BÖHMEN. 1869–*date.* *Prague.*

ARCHIV FUER DIE ORNITHOLOGIE. *See* NAUMANNIA.

ARCHIV FÜR DIE SYSTEMATISCHE NATURGESCHICHTE. *Leipzig.*
1804. Continued as Beiträge zur Naturkunde.

ARCHIV D. VEREINS D. FREUNDE D. NATURGESCH.
1847–1922. Jrg. 1–75. Mit Inhaltsverz. zu 21–50 u. alphab. Register zu 11–50. Nebst 2 Katl. d. Vereinsbibliothek von 1887 u. 1896. Gustrow. *Mecklenburg.*

ARCHIV F. WISSENSCHAFTL. U. PKT. THIERHEILKUNDE.
1875–1901. Vols. 1–27. (Continues the earlier Magazin f. d. ges. Thierheilk.) *Berlin.*

ARCHIV FÜR ZOOLOGIE UND ZOOTOMIE. *Berlin, Brunswick.*
1800–6. Continued as Neues Archiv für Zoologie und Zootomie.

ARCHIVES DE BIOLOGIE. 1880–*date.* *Paris, Ghent, Liége.*

A very important periodical, especially for reference.

ARCHIVES DE LA COMMISSION SCIENTIFIQUE DU MEXIQUE. *Paris.*
1865–7. (Wanting.)

ARCHIVES OF COMPARATIVE MEDICINE AND SURGERY. *See* JOURNAL OF COMPARATIVE MEDICINE AND VETERINARY ARCHIVES.

ARCHIVES ITALIENNES DE BIOLOGIE.
1882–*date.* (Wanting.) *Pisa, Rome.*

ARCHIVES DU MUSÉUM D'HISTOIRE NATURELLE DE LYON. *See* MUSÉUM DES SCIENCES NATURELLES DE LYON.

ARCHIVES DU MUSÉUM D'HISTOIRE NATURELLE DE PARIS.
1865–74. 1st Ser. 1–10.

1875–88. 2nd Ser. 1–10.

1889–98. 3rd Ser. 1–10.

1899–1908. 4th Ser. 1–10.

1909. 5th Ser. Vol. 1 and continuation.

ARCHIVES NÉERLANDAISES DE PHYSIOLOGIE DE L'HOMME ET DES ANIMAUX. **1916**–*date*. *The Hague.*

ARCHIVES NÉERLANDAISES DES SCIENCES EXACTES ET NATURELLES. *The Hague.*

1866–97. Series 1.

1897–1911. Series 2.

1911–*date*. Series 3 *a*. (Sciences Naturelles.)

ARCHIVES PORTUGAISES DES SCIENCES BIOLOGIQUES. **1921**–*date*. (Wanting.) *Lisbon.*

ARCHIVES OF SCIENCE AND TRANSACTIONS OF THE ORLEANS COUNTY SOCIETY OF NATURAL SCIENCES. **1870–4.** *Newport, Vt.*

ARCHIVES SLAVES DE BIOLOGIE. **1886–7.** (Wanting.) *Paris.*

ARCHIVES DE ZOOLOGIE EXPÉRIMENTALE ET GÉNÉRALE.
1872–*date*. Publiées sous la direction de H. de Lacaze-Duthiers. Tom. I–X.

1883–92. Ser. II, Tom. I–X (= XI–XX).

1893–1902. Ser. III, Tom. I–X (= XXI–XXX). Publiées sous la direction de H. de Lacaze-Duthiers (et G. Pruvot and afterwards E. G. Racovitza).

1903–9. Ser. IV, Tom. I–X (= XXXI–XL). Fondées par H. de Lacaze-Duthiers. Publiées par G. Pruvot et E. G. Racovitza.

1909–13. Ser. V, Tom. I–X (= XLI–L).

1912–*date*. Tom. LI–. *8vo.* *Paris.*

ARCHIVIO DI BIOLOGICA. **1894**–*date*. (Wanting.) *Florence.*

ARCHIVIO DI SCIENZE BIOLOGICHE. **1919**–*date*. *Naples.*

ARCHIVIO PER LA ZOOLOGIA, L'ANATOMIA E LA FISIOLOGIA. *Genoa, Modena, Bologna.*

1861–6. Series 1.

1869–70. Series 2 (all pub.).

ARCHIVIO ZOOLOGICO. (**Unione Zoologica Italiana.**) *Naples.*
1902–*date*. Suspended 1917–20.

ARCHIVOS DE BIOLOGIA. **1916**–*date*. *São Paulo, Brazil.*

ARCHIVOS DE VETERINARIA Y ZOOTECHNIA. **1921–2?** (Wanting.) *Montevideo.*

ARCHIVUM BALATONICUM. (**Mus. Nation. Hungaricum.**) **1926**–*date*. *Budapest.*

ARCHIVUM ZOOLOGICUM.
1909–10. Redactionis curam gerentibus Dr. J. de Madarász et E. Csiki. Vol. I. *Budapest.*

ARCTIC WORLD, THE, etc. *See* ANONYMOUS, 1876.

ARDEA.
Tijdschrift der Nederlandsche Ornithologische Vereeniging onder redactie van: Dr. L. F. de Beaufort, A. A. Van Pelt Lechner en Dr. E. D. Van Oort. *8vo.* Plates and cuts in the text. Colored wrappers, with figure of Ardea.

1912–*date*. Jaargang I–. Quarterly. *8vo.* *Leiden, Holland.*

The Journal is the continuation of the *Verslagen en Mededeelingen Nederlandsche Ornithologische Vereeniging.*

A detailed catalogue of the issues to 1922 is as follows:

Jaargang I. 1912. Afl. 1, 2, and 3–4. Apr.–Dec. *137 pp. index. illust.* Double part 3/4.

Jaargang II. 1913. Afl. 1–4. Mar., June, Sept., Dec. *173 pp. index. illust.*

Jaargang III. 1914. Afl. 1–4. Mar., June, Oct., Dec. *149 pp. index. illust.*

Jaargang IV. 1915. Afl. 1–4. Mar., June, Sept., Dec. *146 pp. index. illust.*

Jaargang V. 1916. Afl. 1–4. Apr., Aug., Dec. *118 pp. index. illust.* Double part 3/4. Dec.

Jaargang VII. 1918. Afl. 1–4. Apr., Aug., Dec. *184 pp. index. illust.* Double part 1/2.

Jaargang VIII. 1919. Afl. 1–4. Aug.; Afl. 2, Nov. *132 pp. illust.* Pub. by A. B. Wigman, *Wageningen, Holland.*

Jaargang IX. 1920. Afl. 1 May and 2 Sept. *60 pp. index. illust.*

Jaargang X. 1921. Afl. 1–3. *193 pp. index illust.* Pub. by E. J. Brill, *Leiden.*

Jaargang XI. 1922. Afl. 1. *96 pp.*

On the list of contributors to the *Verslagen* and to *Ardea* may be mentioned F. E. Blaauw, Dr. A. E. H. Swaen, Dr. E. D. Van Oort, F. Willemse *et al*, who furnish a number of valuable observations (occasionally in French and German) on both Dutch and Batavian species.

ARENBERG, E., *Prince* D'.
1911–12. Les oiseaux nuisibles de France et les modes de chasse ou de piégeage propres à leur destruction suivi de quelques considérations sur les buses et le faucon cresserelle. *2 vols. 12mo.* Vol. I. 1911. *pp. 109+1. 22 col. pl. T. of c.* Vol. II. 1912. *pp. 156. 27 col. pl. T. of c.*

An essay on French economic ornithology in which bird-hunting and its methods are fully discussed.

1922. Les passereaux, les pigeons, les échassiers et les palmipèdes nuisibles de France, et les modes de chasse et de piégeage propres à leur destruction. 27 Planches coloriées. *12mo. pp. 156. 27 pl. (col.). T. of c.* *Paris.*

A crudely illustrated booklet on birds alleged to be injurious in France.

ARÉVALO Y BACA, José [*d.* 1890].

1887. Aves de España. *sm. 4to. 29 cm. pp.* [*iii*]–*vi,* [*7*]–*471.* (*Half-title:* Memorias de la Real academia de ciencias exactas, físicas y naturales. tomo XI). *Madrid.*

A monograph on the birds of Spain, with their vulgar and systematic names, food supply, distribution, habits, and other characters. The work, excellent as it is, lacks illustration. The present copy, in the original wrappers, is from the author's library.

ARGENSOLA, Bartolomé Leonardo d' [1566–1631].

1708. The discovery and conquest of the Molucco and Philippine Islands; containing their history, ancient and modern, natural and political . . . Written in Spanish by Bartholomew Leonardo de Argensola . . . Now translated into English: And illustrated with a map and several cuts. *pp.* (*4*)+*260*+(*8*). *1 pl. index. London.*

ARGENT, J. A.

1839. A Nomenclature of British Birds, etc. (Labels for collections.) *1 vol. 8vo. London.*

A useful collection of tags for reference.

ARGENTINE REPUBLIC. Comisión científica de la expedición al Río Negro, 1879.

1881–2. Informe oficial de la Comisión científica agregada al Estado mayor general de la expedición al Río Negro (Patagonia) realizada en los meses de abril, mayo y junio de 1879, bajo las órdenes del general D. Julio A. Roca (con 16 láminas). *3 pts. folio.* 33½×25½ *cm. pp. 24*+*530. illust. plates* (*partly col.*). *Buenos Aires.*

Contents: entrega I. Zoología. I. Observaciones generales sobre la fauna del territorio conquistado, por Adolfo Doering. II. Enumeración sistemática de las especies observadas durante la expedición: Vertebrados, por A. Doering. Moluscos, por A. Doering. Insectos, por Cárlos Berg. Arácnidos, por E. L. Holmberg.—entrega II. Botánica, por P. G. Lorentz y G. Niederlein.—entrega III. Geología, por A. Doering.

ARISTOTLE [384–322 B.C.].

Early 14th century. German manuscript. Translacio tractatus primi libri quem composuit Aristoteles in cognitione naturarum animalium.

A fragment of the translation of the *Historia animalium* from Arabic and Latin by Michael Scott. [O.]

1476. Libri de Animalibus. Hain—C. 1699. Proctor 4312. [O.] *Venice.*

1493. Prepositiones ex omnibus Aristotelis libris philosophie, moralis, naturalis & prime nec nō dialectice, rhetorice & poeticae, diligētissime excerpte: & ad certa rerū capita pulcherimo ordine per tabellam additam redacte [by Theophilus de Ferrarus, ed. by Benedictus Soncinas]. *folio. pp.* [*56*]+*287. Venetiis.*

1495–8. Opera; Graece, etc. Aldus Manutius. *folio. 5 vols.* ᾽ΑΡΙΣΤΟΤ. ΠΕΡΙ ΖΩΩΝ ῾ΙΣΤΟΡΙΑ. [O.] *Venice.*

The second volume of this rare (and famous) Greek edition containing the History of Animals.

1498. De natura animalium, de partibus animalium, de generatione animalium (lat.), interprete Th. Gaza. Barth de Zanis. *Venetiis.*

1513. Habentur hoc volumine haec Theod. Gaza interprete. Aristotelis de natura animalium, de partibus et generatione animalium. Theophrasti de historia plantarum, etc. Alexandri Aphrodisiensis problemata, etc., latine. Aldus. *folio. Venetiis.*

The celebrated Aldine print.

1533. De Historia animalium. Simon Colinaeus. *folio. Parisiis.*

1783. Histoire des animaux d'Aristote, avec la traduction françoise, par M. Camus. *2 vols. Paris.*

Vol. 2 has title: Notes sur l'Histoire des animaux d'Aristote, par M. Camus . . .
Greek and French on opposite pages.
'Notice des mss. & des éditions de l'Histoire des animaux, soit en grec soit en latin, dont on a fait usage pour cette édition': vol. 1, *pp.* [*xli*]–*lvi.*
'Table des auteurs qui ont été consultés pour la rédaction des notes': vol. 2, *pp.* [*xliv*]–*xlviij.*

1811. Aristotelis de animalibus historiae lib. X Graece et Latine. Textum recensuit, J. C. Scaligeri versionem recognovit, commentarium indicesque adjecit J. G. Schneider. *4 vols. 8vo. Lipsiae.*

1816. Naturgeschichte der Thiere. Übers. v. F. Strack. *Frankfurt-a-M.*

1831–70. Aristoteles Graece ex recensione Immanuelis Bekkeri. Ed. Academia Regia Borussica. Vols. 1, 2, & 5. [O.] *Berol.*

1831. Historia Animalium. *Lipsiae.*

1853. Vier Bücher ueber die Theile der Thiere; Griechisch und Deutsch und mit sacherklärenden Anmerkungen hrsg. von A[lexander] von Frantzius. *pp. 12*+*322.*

1857. Zoologisch-kritische Bemerkungen zu Aristoteles Thiergeschichte. *4to. pp. 2*+*27.* *See* Sonnenburg, Ludwig. *Bonn.*

1862. Aristotle's History of animals. In ten books. Trans. by Richard Cresswell. H. G. Bohn. *pp. ix*+(*1*)+*326. append. index. London.*

This excellent translation forms vol. 7 of *Bohn's Classical Library.*

1863. Die Thierarten des Aristoteles von den Klassen der Säugethiere, Vögel, Reptilien, etc. *8vo. pp. 242.* (Wanting.) *Stockholm.*

This is an admirable translation from the Swedish by C. J. Sundevall. It gives a clear description of the zoology of the illustrious, ancient naturalist.

1868. Aristotelis de partibus animalium libri quatuor ex recognitione Bernhardi Langkavel. *sm. 8vo. pp. lxviii*+*261. index. Leipzig.*

The Greek text of Aristotle's 'animals' with (Latin) notes by the Rev. Bernhard Langkavel of Berlin.

1868. Thierkunde. Kritisch-berichtigter Text, mit deutscher Übersetzung, sachlicher und sprachlicher Erklärung u. vollständigem Index von H. Aubert u. Fr. Wimmer. *2 vols. pp. 1052. 7 pl. Leipzig.*

1882. Aristotle on the Parts of Animals. Tr. . . . by W. Ogle. *8vo.* [O.] *London.*

1883. Histoire des animaux traduite en Français . . . par J. Barthélemy-Saint-Hilaire. *3 vols. 8vo.* Part of his *Œuvres d'Aristote.* [O.] *Paris.*

[**ARISTOTLE** [384–322 B.C.] (contd.)]

1887. Traité de la Génération des Animaux . . . traduit par J. Barthélemy-Saint-Hilaire. *2 vols.* *Paris.*

1908. The works. Tr. into English—J. A. Smith and W. Ross. *11 vols. 8vo.* Vol. V is devoted to animals. [O.] *Oxford.*

1911. De partibus animalium. Translated by William Ogle. *8vo. pp. 8+639a–697b. index.* *Oxford.*

The title *supra* is a second and revised reprint of a section of the translator's edition of Aristotle's works. It gives a very interesting account of the anatomy and physiology of both 'sanguineous' and 'bloodless' animals.
To the Compiler a specially important section is that devoted to the special senses and to the anatomy of the apparatus concerned in them.

1913. Aristotle as a biologist. *See* THOMPSON, D'ARCY W.

It may be noted that several titles in the Osler Library not listed here contain references to the animals of Aristotle.

ARK. (**Society for Prevention of Cruelty to Animals.**) **1875.** (Wanting.) *Boston.*

ARKIV FÖR ZOOLOGI. K. SVENSKA VETENSKAPS-AKADEMIEN. 1903–*date.* *Stockholm.*

ARLDT, THEODOR [1878–].

[*c.* **1921**]. Tiere der Vorwelt; Bilder aus der Saurierzeit. *8vo. pp. 144. illust.* (Deutsche naturwissenschaftliche Gesellschaft.) *Leipzig.*

ARMANDI, PIERRE DAMIEN [1778–1855].

1843. Histoire Militaire des Éléphants. *8vo. pp. xvi, 570.* *Paris.*

ARMAS, JUAN IGNACIO DE.

1888. La Zoología de Colón y de los primeros Exploradores de América. *8vo.* *Habana.*

ARNAULT DE NOBLEVILLE, LOUIS DANIEL [1701–]. *See* NOBLEVILLE, ARNAULT DE.

ARNDT, WALTER.

1928–?. Die Rohstoffe des Tierreichs. *8vo. Berlin.*

This is the major heading of a series of important monographs on 'raw materials' in general zoology.

ARNGRIMSON, FRIMANN B. *See* HAGERUP, A. T., 1891.

ARNOLD, EDWARD CARLETON.

1907. A bird collector's medley. *pp. 8+144. front. (col.). 19 pl. (11 col.). 20 figs. T. of c.* *London.*

1924. British waders, illustrated in water-colour with descriptive notes. *4to. pp. vii+(1)+102. 51 pl. (col.). T. of c.* *Cambridge.*

ARNOLD, EDWIN LESTER LINDEN.

1887. Bird life in England. *8vo. pp. x+325. T. of c.* *London.*

An interesting account of many of the most familiar English birds, as well as a review of the game laws abroad, pp. 273–325. The above was a presentation copy from the author to Howard Saunders.

ARNOLD, FRIEDRICH.

1897. Die Vögel Europas, ihre Naturgeschichte und Lebensweise in Freiheit und Gefangenschaft. *sm. 4to. pp. lxxx+458. 48 col. pl. 76 text figs. T. of c. index.* *Stuttgart.*

A well-known, popular work, giving a full description of the plumage, habits, and other characters of European birds. The colored figures, though small, are of decided value in identifying species. They have been extensively used to illustrate other publications.

ARQUIVOS INDO-PORTUGUÊSES DE MEDICINA E HISTORIA NATURAL. 1921–*date.* (Wanting.) *Nova-Goa.*

ARRIGONI DEGLI ODDI, ETTORE, *Conte* [1869–].

1899. Materiali per una Fauna ornitologica Veronese. *8vo.* *Padova.*

1902. Atlante ornitologico. Uccelli Europei con notizie d'indole generale e particolare. *1 vol. 4to. T. of c. index. front. 2 parts.* *Milano.*

Part I. *pp. xix+165. Bibliograph, pp. 132–165. index.* Part II. *pp. xxv+566. 50 col. pl. 210 figs. in text. index.*

An excellent and comprehensive description of European birds, well illustrated. The chromolithographs are nearly all borrowed from Arnold's *Vögel Europas.* Italian vernacular names of species accompany the systematic titles.

1904. Manuale di ornitologia italiana; elenco descrittivo degli uccelli stazionari o di passaggio finora osservati in Italia. *12mo. 15½ cm. pp. 163, viii, 907, [1]. Numerous illust. plates. map. Three indexes.* (Manuali Hoepli.) *Milano.*

An excellent handbook and descriptive review of all Italian birds.

1910. Notizie sopra un individuo albino di Mestolone o Spatula Clypeata (Linn.). *8vo. 8 pp. illust.* *Firenze.*

Description and portrait of a Shoveller Duck affected with complete albinism, shot near Padua, March 14, 1910.

1929. Ornitologia Italiana. *4to. pp. 1046. 36 col. pl. 586 figs. in text. index. bibliog. pp. 29–151.*

This is the most recent and most complete treatise in Italian on the birds of the world, by an ornithologist who has already published a number of systematic and popular works on his favorite subject.

[L']ART ANCIEN, S.A. Pelikanstr. 8, Zürich I. Switzerland.

(**1925–9**). Bulletins XIII–XVI. Early Books on Medicine, Natural History, and Alchemy (printed 1468 to 1800 A.D.). *722 pp. 106 illust. Index.*

Although this volume is primarily a dealer's catalogue it forms a useful, illustrated, annotated, and alphabetically arranged work of reference for students of early treatises on subjects relating to the sciences mentioned. Of the 2,000 titles thus described the majority were published in the 15th and 16th centuries.

ARTAUD, SOULANGE. *See* BLUMENBACH, J. F., 1803.

ARTEDI, PETER [1705–35]. *See* SEBA, ALBERTUS, 1734–65.

1738. Petri Artedi . . . Ichthyologia sive opera omnia de piscibus, scilicet: Bibliotheca ichthyologica. Philosophia ichthyologica. Genera piscium. Synonymia specierum. Descriptiones specierum. Omnia in hoc genere perfectiora, quam antea ulla. Posthuma vindicavit, recognovit, coaptavit & edidit Carolus Linnæus . . . *5 pt. in 1 vol. 20½ cm.* Each part has special t.-p. 'Vita Petri Artedi descripta a Carolo Linnæo': *pp. [vii–xvii].* *Lugduni Batavorum.*

A well-known work on ichthyology by a famous pupil of Linnaeus.

ARTEDUS, PETRUS. *See* ARTEDI, PETER and LINNAEUS, CAROLUS, 1738.

ARTHUR, C. P.

n.d. Budgerigars and cockateels; how to keep, feed and breed them; with some additional notes by W. T. Page and W. Laskey. *8vo. pp. 34. cuts in text.* *London.*

A dealer's pamphlet, but containing useful information for the amateur.

******** and **FINN,** FRANK.

n.d. Parrots for pleasure and profit. *12mo. pp. 34. front.* *London.*

The first portion of this little book is devoted to a general account of the care and treatment of Grey Parrots, Blue, Double, Festive, and Yellow-fronted Amazons, Mealy and Yellow-naped Amazons; pp. 17–21 to the breeding of hybrid Parrakeets; pp. 22–31 to an account of six popular parrots by Frank Finn, whilst the concluding pages are devoted to some facts about Macaws, also by Frank Finn.

ARTHUR, STANLEY CLISBY.

1918. The birds of Louisiana. *8vo. pp. 80. 7 pl. 4 figs. index.* *New Orleans.*
Bull. No. 5, State of Louisiana, Dept. of Conservation.

An annotated list of the 368 species recorded for the State. Twenty-five blank sheets for notes are bound in at the end of this copy, which is also an autographed presentation from the author.

ARUNDEL, W. B.

1898. Ackworth Birds, etc. *8vo.* (Wanting.) *London.*

ASCHAFFENBURG.

1884–1907. Naturwissenschaftl. Verein zu Aschaffenburg. Mitteilungen. 1–6 (all pub.).

ASH, EDWARD C.

1927. Dogs: their History and Development. *2 vols. 4to. 268 pl.* Vol. I. *pp. 18+384. 108 pl. figs. in text.* Vol. II. *pp. 16+778. 160 pl. figs. in text. index.*

This monumental work describes and discusses the various canine races and their hybrids from prehistoric times until the present. It is a complete history, literary and systematic, of the Dog in all his relations, and leaves little to be said on the subject. Many of the illustrations are reproductions of contemporary prints.

ASHE, THOMAS.

1808. Travels in America, performed in 1806, for the Purpose of Exploring the Rivers Alleghany, Monongahela, Ohio and Mississippi, and Ascertaining the Produce and Condition of their Banks and Vicinity. *8vo. pp. 366.* *Newburyport.*

First American Edition.
It contains 'Birds of the North West Country', 119 species being listed. 'I have been much engaged during my rambles in ascertaining the number and character of the birds.' Not in Coues' *Bibliography.*

ASHMOLEAN MUSEUM, A CATALOGUE OF.

1836. *See* ANONYMOUS.

ASHMOLEAN NATURAL HISTORY SOCIETY, OXFORD.

1901–*date.* Proceedings and Report.

ASHMOLEAN SOCIETY, OXFORD. (Continued as Ashmolean Natural History Society.)

1832–58. Abstracts of the Proceedings. (Wanting.)

1879–81. Journal of the Proceedings.

1866–8. Proceedings.

1872–7. Report.

1835–53. Transactions.

ASHTON, JOHN [1834–1904].

1890. Curious creatures in zoology, with 130 illustrations throughout the text. *8vo. pp. xi+(1)+348. 130 figs. T. of c. index.* *London.*

Compiled to place on record some of those 'strange things' seen by travelers, which are fast falling into oblivion. For instance, on pp. 171–206—with 17 illustrations—we are told of four-footed ducks, two-headed wild geese, woolly hens, and even of a monstrous cock with serpent's tail, etc.

ASIATICK RESEARCHES.

1788–1839. Forerunner of the Journal of the Asiatic Society of Bengal. Vols. I–XX, with General Index to Vols. I–XVIII. *4to.*

ASIATIC SOCIETY OF BENGAL. *Calcutta.*

1788–1839. Asiatic Researches, or Transactions of the Society.

1805. Asiatic Researches, French edition. (Wanting.)

1801–18. Asiatic Researches, London edition.

1832–64. Journal.

1865–1915. Journal (Part 2)—Natural History.

1905–*date.* Journal and Proceedings.

1905–*date.* Memoirs.

1865–1904. Proceedings.

1849–[52]. Catalogue of the birds in the Museum Asiatic Society. *See* BLYTH, E.

1885. Centenary review of the Asiatic society of Bengal from 1784 to 1883. Published by the society. *pp. 762.* *Calcutta.*

ASIATIC SOCIETY OF GREAT BRITAIN AND IRELAND. *See* ROYAL ASIATIC SOCIETY OF GREAT BRITAIN AND IRELAND.

ASIATIC SOCIETY OF JAPAN. *Yokohama.*

1872–1922. Series 1. Transactions.

1924–*date.* Series 2. Transactions.

Publisher's runs of this important periodical to vol. 50 (Series 1) were destroyed by the great Japan earthquake so that complete sets are now very rare.

(ROYAL) ASIATIC SOCIETY, KOREA BRANCH. *Seoul.*
Vols. I–XX and continuation.

ASSOCIATION FRANÇAISE POUR L'AVANCEMENT DES SCIENCES.

1896–*date.* Bulletin Mensuel.

1872–83. Compte rendu.

1884–*date.* Notes et Mémoires.

Many papers on vertebrate zoology are to be found in these important periodicals.

ASSOCIATION LYONNAISE DES AMIS DES SCIENCES NATURELLES. 1874–82. (Wanting.) *Lyon.*

ASSOCIATION DES NATURALISTES DE LEVALLOIS-PERRET.

1895–1913. Annales.

1906–14. Bulletin. (Wanting.)

ASSOCIATION DES NATURALISTES DE NICE ET DES ALPES-MARITIMES. *See* RIVIERA SCIENTIFIQUE. *Nice.*

ASSOCIATION DES NATURALISTES DE LA VALLÉE DU LOING. *Moret-sur-Loing.*

1913–*date*. Bulletin. (Wanting.)

ASSOCIATION FOR PROMOTING RATIONAL HUMANITY TOWARDS THE ANIMAL CREATION. *See* VOICE OF HUMANITY.

ASSOCIATION STRASBOURGEOISE DES AMIS DE L'HISTOIRE NATURELLE. *Strasbourg.*

1852–70. Compte-rendu.

ASTLEY, HUBERT DELAVAL [1860–1925].

1900. My birds in freedom & captivity. *demy 4to. pp. (8)+ix–xvi+254. front. (col.). 21 pl. 17 figs. T. of c. index.* *London.*

A sumptuous volume, beautifully illustrated from drawings by the author who gives his experiences of birds observed in the field and in his own aviary. The present copy is No. 46 of the large paper edition, which was limited to one hundred copies. The frontispiece in this edition is colored, but without letters.

1900. My birds in freedom and captivity. *8vo. pp. (6)+ix–xvi+254. front. 21 pl. 17 figs. T. of c. index.* *London.*

Text and illustrations the same as the larger edition of same date (q.v.) except that the frontispiece is uncolored and bears the lettering 'Checkers Court, Bucks. My old Home'. Attached to the present copy are two letters regarding a memorial to the late author, who died on May 26, 1925.

ASTROLABE, VOYAGE OF THE. *See* DUMONT D'URVILLE, JULES SÉBASTIEN CÉSAR, 1830–5, and VOYAGES, **FRANCH.**

ASTROLABE AND ZÉLÉE, VOYAGE OF THE. *See* DUMONT D'URVILLE, J. S. C., 1842–54, and VOYAGES, **FRANCH.**

ASTRUC, JEAN [1684–1766].

1737. Mémoires pour l'histoire naturelle de la province de Languedoc, divisés en trois parties. *4to. pp. 26+[2]+630. pl. maps.* *Paris.*

ATKINSON, A. E.

1899. Manitoba Birds of Prey, etc. *8vo. Winnipeg.*

ATKINSON, JOHN [1787–1828].

1820. A compendium of the ornithology of Great Britain, with a reference to the anatomy and physiology of birds. *8vo. 22 cm. pp. vi, [ix]–xii, 232. T. of c. index.* *London.*

The preface states the intention of the author to collect 'the information scattered through extensive treatises and the transactions of learned societies—to state the species which have been recently discovered—and to correct those errors in synonyma which the difference in feather in different ages, or at certain times in the year, has frequently produced'.

The present copy is interleaved and full of notes by Yarrell. It belonged to Sir William Jardine, who has made the following notation on a blank fly-leaf: 'This copy of Atkinson belonged to William Yarrell, and was purchased at the Sale of his Library, 15th Novr. 1856 For £1 1*s*. 0*d*. All the notes in pencil throughout the vol. are Mr. Yarrell's.—Wm. Jardine.'

ATKINSON, JOHN CHRISTOPHER [1814–1900].

1861. Sketches in natural history, with an essay on reason and instinct. With eighty-two illustrations by W. S. Coleman, &c., engraved by the brothers Dalziel. *8vo. pp. xii+338+(1). front. 82 figs. (49 birds; 5 eggs). T. of c. index.* *London.*

References to birds are very numerous, scattered throughout the entire work, whilst more than half the illustrations are devoted to them. A second edition appeared in 1865.

1861. British birds' eggs and nests, popularly described. Illustrated by W. S. Coleman. *8vo. pp. vi+122. front. 11 pl. append. index.* *London.*

An edition of an earlier work with the same title, closely printed on poor paper and with uncolored plates and no chart. There is a note on the back of the title-page to the effect that a superior edition could be obtained printed on fine paper and with colored illustrations.

[**1866**?] British birds' eggs and nests. *8vo. pp. viii+182. front. (col.). 11 pl. (col.). 1 chart (fold. in pocket). append. index.* *London.*

A short account of the habits and nidification of British Birds. In a pocket there is a folded Synoptical Table of British-breeding birds' nests and eggs, showing site and materials of the former, and number, color, and markings of the latter. The work was first issued in 1861, there being many subsequent new editions.

1870. British birds' eggs and nests. New edition. *cap. 8vo. pp. viii+182. front. (col.). 11 pl. (col.). 1 chart (fold. in pocket). append. index.* *London.*

A new edition, apparently without alterations of any kind.

[**1898**]. British birds' eggs and nests popularly described. Rev. and re-ed. *8vo. pp. vii+(1)+245+(1). front. (col.). 11 pl. (col.). append. index.* *London.*

A new and re-edited edition. Still another printing appeared in 1904, according to Mullens and Swann. The present copy lacks the folding chart.

ATLANTIC SLOPE NATURALIST. 1903–4. *Narberth, Pa.*

ATLANTIS.

1930–*date*. Länder, Völker, Reisen. *4to. Ill. Ed.* Walther Meier. Weekly. *Berlin-Zürich.*

(THE) ATLAS OF NATURE, &c. *See* ANONYMOUS, 1823.

ATTI D. (R.) ACCADEMIA DEI LINCEI. 1847–76. *See* (R.) ACCADEMIA . . . LINCEI, ROMA. *Roma.*

ATTI DELL' ACCADEMIA . . . PADUA. 1872. *See* ACCADEMIA . . . PADUA.

ATTI D. ACCADEMIA DELLA SCIENZE DI SIENA. 1761–74. *See* ACCADEMIA . . . SIENA.

ATTI D. CATANIA ACCADEMIA GICENIA DI SCIENZE NATURALE.

1824–*date*. Various eras.

AUBUSSON, LOUIS MAGAUD D' [1847–1917].

1883. Les oiseaux de la France. Première monographie; corvidés. Histoire naturelle générale et particulière des passereaux déodactyles cultrirostres observés en France. *folio. pp. [2]+107. 20 pl. (18 col.). T. of c.* *Paris.*

A systematic study of the French *Corvidae* with fine, full-page colored plates. The work is the first of a projected series of monographs.

AUDEBERT, JEAN BAPTISTE [1759–1800].

[**1799**]. An VIII. Histoire naturelle des singes et des makis. *large folio. pp. 2+176. 10 pls. 63 col. pl.* Brunet 550, I. Large paper. House of Commons copy with arms stamped on cover; and bookplate. *Paris.*

This is the first original work of Audebert, the distinguished French naturalist and artist. The figures were drawn and colored after a special process invented by himself.

******** and **VIEILLOT,** L. J. P.

1802. Oiseaux dorés ou à reflets métalliques. Tome premier [Histoire naturelle et générale des colibris, oiseaux-mouches, jacamars et promerops. An XI.] Tome second [Histoire naturelle et générale des

grimpereaux et des oiseaux de paradis. An XI]. *2 vols. roy. folio.* Vol. I. *pp.* [4]+*x*+*128*+*8*+*28. 85* (*col.*) *pl. index.* Vol. II, *pp.* [4]+*128*+*40. 105* (*col.*) *pl. index.* *Paris.*

One of the early and best known atlases with many beautiful colored plates.

1810. Histoire naturelle des singes et des makis. *12 pts. in 1 vol. folio. 63 col. pl.* *Paris.*

Another edition of the famous atlas.

**** and **VIEILLOT,** L. J. P.

1830–40. Storia naturale generale dei colibri degli uccelli mosca, delle galbule e dei promeropi di G. B. Audebert e L. P. Vieillot; prima traduzione Italiana [fr. the Fr.] con note di Guiseppe de Ceresa. *2 vols. folio. pl.* *Milano.*

CONTENTS. Vol. 1. Text. [2]. Plates.

An Italian impression of Vieillot and Audebert's *Histoire naturelle des oiseaux dorés.* The plates are as in the original work but arranged in different order. This copy belonged to Canon H. B. Tristram.

AUDOUIN, JEAN VICTOR [1797–1841].

1822–30. Dictionnaire Classique d'Histoire Naturelle. 17 vols. *See also* BORY DE SAINT-VINCENT. Ouvrage dirigé par ce dernier collaborateur.

1832–4. Recherches pour servir à l'histoire naturelle du littoral de la France, ou Recueil de mémoires sur l'anatomie, la physiologie, la classification et les mœurs des animaux des nos côtes; ouvrage accompagné de planches faites d'après nature. *2 vols. 24 cm. 23 pl.* (*partly fold.*). *fold. map, 4 fold. tab.* No more published. *Paris.*

CONTENTS.—t. 1. Voyage à Granville, aux îles Chausey et à Saint-Malo. L'état actuel des pêches maritimes en France. La pêche de la morue à Terre-Neuve. Recherches sur les naufrages qui ont lieu sur les côtes de France.—t. 2. Annélides. 1. ptie.

Written in conjunction with Milne Edwards.

1883. Audouin's Explication sommaire des planches d'oiseaux de l'Égypte et de la Syrie, pub. par Jules-César Savigny. *8vo. pp.* (2)+*v–vii*+(2)+'*302–430*'. *T. of c. index.* *London.*

Descriptions of, and notes on, the birds of Egypt and Syria, based on the 14 plates published by Savigny in his *Système des Oiseaux de l'Égypte et de la Syrie*, 1810 (q.v.). The discussion of these plates was begun by Savigny but never finished, the entire subject being later delegated to Audouin, whose contribution (here reprinted by the Willughby Society) was first published about 1826 in part IV of the 'Histoire Naturelle, Tome Premier', pp. 251–318 and 336–9, of the 'Description'. The above verbatim transcription, however, is from the Panckouke edition of 1820–30 where it occupies pp. 302–430 and 450–6 of vol. XXIII, published in 1828. The differences between the two editions are not collated in the reprint, although the index p. 139 contains references to both.

AUDUBON, H. S. J.

1856. Boy's Life of Aububon the Naturalist, etc. *New York.*

AUDUBON ASSOCIATION OF THE PACIFIC. *See* THE GULL.

AUDUBON BIRD CHARTS.

n.d. Nos. 1–3. 27×42 in. Issued for school and similar purposes by the National Assocn. of Audubon Societies. *New York.*

(THE) AUDUBON BULLETIN. (Published by the Illinois Audubon Society, Chicago.)

1916–*date. 8vo. illust. pls.* *Chicago.*

Spring 1916, Winter 1916–17, Spring 1917, Winter 1917–18, Spring and Summer 1918, Winter 1918–19, Spring 1920, Spring 1921, Fall 1921, Spring 1922, Fall 1922, Spring 1923, Fall 1923, Spring and Summer 1924, Summer 1925, Spring and Summer 1926, Spring and Summer 1927.

AUDUBON, JOHN JAMES LAFOREST [1770–1851].

1827–38. The birds of America; from original drawings. *4 vols. double elephant folio. 99½ cm. ccccxxxv col. pl.* *London.*

Engr. t.-p.

Imprint dates: vol. 1, 1827–30; vol. 2, 1831–4; vol. 3, 1834–5; vol. 4, 1835–8, June 20.

Plate lxiv drawn from nature by Lucy Audubon.

Plates i–ii, vi–vii engr. by W. H. Lizars, retouched by R. Havell, junr.; pl. viii–ix engr. by W. H. Lizars; pl. iii–v, ci–cv, cviii, cx engr., printed and coloured by R. Havell, junr.; pl. x–c, cvi–cvii, cix, cxii–ccccxxxv engr., printed and coloured by R. Havell.

Plates ii, vii dated 1829; pl. cvi–cx, cxii–cxv dated 1831; pl. cxxxi–cxl, cxliii–clv dated 1832; pl. clvi–clxxvii, clxxix–clxxxii, clxxxiv–clxxxv dated 1833; pl. clxxxvi–cxcvii, cxcix, ccii–ccxxxv dated 1834; pl. ccxxxvi–cclxxxv, cclxxxvii, cclxxxix–ccxc dated 1835; pl. cclxxxvi, cclxxxviii, ccxci–cccl dated 1836; pl. cccli–cccc dated 1837; pl. cccci–ccccxxxv dated 1838.

Plate cclx marked 'ccxl'.

Originally issued in 87 pts.

'The plates were published without any text, to avoid the necessity of furnishing copies gratis to the public libraries in England, agreeably to the law of copyright.'—Sabin, A dictionary of books relating to America, vol. 1, p. 315.

Text to accompany the plates was published in 5 vols., roy. 8vo, Edinburgh, 1831–9, under title 'Ornithological biography, or An account of the habits of the birds of the United States of America . . .' Later editions, of text and plates combined, with alterations, were published in 7 and 8 vols., roy. 8vo, under title 'The birds of America, from drawings in the United States and their territories'.

The foregoing collation is from the cards of the Library of Congress, and corresponds exactly with the copy in hand. This work is probably the most famous of the rare plates of American birds. The present volumes were purchased and presented to the McGill general library by 100 citizens of Montreal in 1860.

1831. American ornithology . . . By A. Wilson and C. L. Bonaparte . . . [with contributions by J. J. Audubon]. *See* WILSON, A. and BONAPARTE, C. L.

1831. Ornithological Biography, or an account of the habits of the birds of the United States of America; accompanied by descriptions of the objects represented in the work entitled *The Birds of America*, and interspersed with delineations of American scenery and manners. *1 vol. large 8vo. pp. xxiv*+*512. Prospectus of pp. 16.* Judah Dobson and H. H. Porter. *Philadelphia.*

A separate edition of the Edinburgh issue—5 vols., 1831–9—with minor changes in the Introduction and text. The appended prospectus is an advertisement of the *Birds of America*, with a list of the 100 plates in the first volume of that work and a roster of subscribers to that work. In the E.S.W. Library is also another edition of this vol. I, practically identical with the foregoing except that the title-page bears the imprint 'E. L. Carey and A. Hart—Chestnut St. 1832'. See W. C. Braislin, *Auk*, p. 360, 1918. Both these volumes are *ex-libris* H. W. Feilden.

1831–9. Ornithological biography, etc. *5 vols. 8vo. illust. text.* *Edinburgh.*

As stated in the title, the above volumes are intended to furnish the text for the author's famous folio edition of *Birds of America.* To this is added, in vol. V, 'Species seen within the limits of the United States' but not figured in *Birds of America*, as well as an

[**AUDUBON,** JOHN JAMES LAFOREST [1770–1851] (contd.)]

appendix with additional descriptive and other matter. Eighteen new species are described and five deleted. A brief collation is the following:
Vol. I. 1831. *pp. xxiv+512. index.* Vol. II. 1834. *pp. xxxii+588. index.* Vol. III. 1835. *9 figs. in text.* Vol. IV. 1838. *pp. xxviii+618. 39 figs. in text. index.* Vol. V. 1839. *pp. xxxix+664. index. 93 figs. in text.*
A good deal of doubt and confusion arises in the mind of the collector who attempts to gather the issues of Audubon's *Ornithological Biography*. The McGill libraries have all the important editions. See Witmer Stone's illuminating account of these numerous printings in the *Auk*, 1906, p. 298. The volumes in hand form a valuable association copy, bearing the autograph inscription 'To Baron G. Cuvier—with the highest respect of the author—Paris, 17th. May 1831.' As all Audubonia are treasured by the McGill Library this copy is regarded as of great sentimental value.

1832. Ornithological biography. [Vol. I.] Pub. by E. L. Carey and A. Hart—Chestnut St. 1832. Printed by James Kay, Jun. & Co., No. 4 Minor St. *Philadelphia.*

This is evidently a rare, separate printing of vol. I, of the five-volume Edinburgh edition. W. C. Braislin (*Auk*, 1918, p. 360) has reviewed this volume with the imprint of 1835, but no one seems to find any reference to the present (1832) volume. It is almost identical with vol. I of the regular Edinburgh 1831–9 printing.

1833. Under the special patronage of her most excellent majesty Queen Adelaide. *The birds of America*, engraved from drawings made in the United States and their territories. Published by the author; and to be seen at Mr. R. Havell's Printseller, Engraver, and Publisher, 77, Oxford Street, opposite the Pantheon, London, where a book is open for subscribers' names. *8vo. pp. 16. T. of c.* *London.*

A prospectus of the author's work, *The Birds of America*, setting forth the number of plates already published in vol. I, as well as those of vol. II, where they could be seen, price, and list of subscribers to date. The first volume consisted of 100 plates, representing 99 species of birds, and was finished in 1830, vols. II and III of equal size being expected to complete the work, of which five numbers were to appear yearly at the price of two guineas each number, eleven having so far appeared of vol. II, containing 55 plates figuring 54 species.

1835. Ornithological Biography. Vol. II. *roy. 8vo. pp. xxxii+588. index.* Hilliard, Gray, and Company, **Boston,** 1835.

This volume corresponds to and was published shortly after vol. II of the Edinburgh edition. Braislin (*Auk*, vol. 35, p. 361) points out that this work is the only one of the series with a Boston imprint and that it differs materially from the Edinburgh printing. The present copy is from the library of H. W. Feilden. Vols. III and IV bear the Edinburgh imprint.

1835. Ornithological Biography. Vol. III, **Edinburgh.** *large 8vo. pp. xvi+638. index. 9 cuts in the text.*

Noted as a separate work, though really forming part of his famous (second or) Edinburgh edition. The introduction bears date Dec. 1st, 1835. The present copy is from the library of H. W. Feilden and has the usual advertisement of the forthcoming *Birds of America* with a list of new subscribers.

1839. A synopsis of the birds of North America. *8vo. pp. xii+359. T. of c.* *London.*

A systematic classification of the birds treated in the folio, *Birds of America*, and *Ornithological Biography*, with references to the plates and the text, respectively. Two species given in the *Biography* are suppressed and two others added making the total the same, 491 spp. This work is sometimes ascribed largely to Macgillivray, to whom acknowledgements are made by Audubon in the preface. Several new specific names date from this volume. The present copy is a presentation one to Osbert Salvin from D. G. Elliot, 1876.

1840–4. (The) birds of America; from drawings made in the United States and their territories. *7 vols. 8vo. 500 col. pl. T. of c. New York & Phil.*

The above forms the original 8vo edition, issued by the author in 100 parts, and forming the text of the 1831–9 printing of the *Ornithological Biography*. The plates are reduced and somewhat altered copies of the bird portraits in the folio, 1827–38 edition of the *Birds of America*. Seventeen new species are described and pictured in an appendix, the plates in all cases being rearranged to correspond with the textual matter. The following is a brief collation of each volume:
Vol. I. 1840. *pp. viii+256. 70 col. pl. 2 text figs. T. of c.*
Vol. II. 1841. *pp. vii+205. 70 col. pl. 4 text figs. T. of c.*
Vol. III. 1841. *pp. viii+233. 70 col. pl. 6 text figs.*
Vol. IV. 1842. *pp. viii+321. 70 col. pl. 28 text figs. T. of c.*
Vol. V. 1842. *pp. viii+346. 70 col. pl. 14 text figs. T. of c.*
Vol. VI. 1843. *pp. vii+457. 70 col. pl. 25 text figs. T. of c.*
Vol. VII. 1844. *pp. ix+371. 80 col. pl. 18 text figs. T. of c. index.*
The copy in hand has the following on the blank title-page: 'Montreal, L.C., Sept. 29/42. It is with delight, and the most grateful sentiments of my poor heart towards you that I subscribe myself as your sincere friend and servant, John J. Audubon. To Frederic Griffin, Esq. Montreal, Canada.'

******** and **BACHMAN,** JOHN.

1845–8. The viviparous quadrupeds of North America. *3 vols. 71×58 cm. 150 col. pl.* Each vol. contains fifty colored plates. *New York.*

Plates lxxxvi, xci, xciii–xcviii, c, cii–cv, cvii–cviii, cx–cxix, cxxi–cl drawn from nature by J. W. Audubon.

Plate [cxxix] numbered cxxiv.

Originally issued in 30 parts.

This edition appears in atlas form. The complete work (see next title) also has 3 vols. text.

******** and **BACHMAN,** J.

1845–54. Viviparous Quadrupeds of North America. *8vo. 3 vols. text. 3 vols. Atlas (150 col. pl.). folio.*

******** and **BACHMAN,** JOHN.

1854. The quadrupeds of North America. *3 vols. col. pl.* Vol. 3, *n.d.* *New York.*

Supplementary to their earlier work on mammalogy.

******** and **BAZIN,** P. F. A. [1796–1865].

1857. Scénes de la Nature dans les États-Unis. *2 vols.* *Paris.*

1860. The Birds of America, from original drawings by John James Audubon. Re-issued by J. W. Audubon. Vol. I (all pub.). *Atlas. elephant folio. 150 plates on 105 sheets.* Chromolith. by J. Bien, 180 Broadway. Roe Lockwood and Son, New York.

This was an attempt to reproduce by chromolithography the original 435 colored plates of the famous 1827–38 elephant folio. It was interrupted by the civil war and only 150 plates appeared with, however, a reprint of the text of the first 8vo (1840–4) edition (without the colored plates) as descriptive matter. The McGill Library has an incomplete set of these plates which are by no means equal in merit to the original hand-colored drawings. A full description of the above is given by Zimmer (*Ayer Cat.*, p. 24). *See* AUDUBON, **1861**, for an account of the text intended to accompany these chromolithographs.

1861. The birds of America, from drawings made in the United States and their territories. Re-issued by J. W. Audubon. *500 col. pl.* Copyright, 1839. Every vol. title dated 1861, New York. *7 vols. Roy. 8vo.* Vol. I, *70 col. pl. pp. viii+246. T. of c.* Vol. II, *col. pl. 71–140. pp. vii+11–199. T. of c.* Vol. III, *col. pl. 141–210. pp. viii+9–233.* Vol. IV, *col. pl. 211–80. pp. viii+9–321. T. of c.* Vol. V, *col. pl. 281–350. pp. viii+9–346. T. of c.* Vol. VI, *col. pl. 351–420. pp. viii+9–456. T. of c.* Vol. VII, *col. pl. 421–500. pp. vii+9–372. Index to seven vols. at end of last volume.* A few woodcuts are scattered throughout the text. One of the reissues of the 1840 octavo form of this remarkable work. It does not differ materially from the 1860 edition described by Zimmer (*Ayer*

Catalogue, p. 23). The present quarto copy was printed by R. Craighead, the plate impressions are clear and the colors good.

****, **AUDUBON,** LUCY and **BUCHANAN,** ROBERT.

1868. The Life and adventures of John James Audubon, the naturalist. *8vo. pp. viii+366. front. (portr.). 1 fig. (vignette).* *London.*

The life and adventures of Audubon by Robt. Buchanan, compiled from a large manuscript called the 'Life of Audubon', prepared by a friend of Mrs. Audubon's, chiefly consisting of extracts from the diary of the naturalist, but here cut down to about one-fifth of the original by the present editor, certain of whose passages caused pain to the naturalist's wife who thereupon edited another edition in 1869 (q.v.) with some additions, and the omission of the objectionable passages.

[**1870**]. The birds of America, from drawings made in the United States and their territories. *8 vols. 8vo. 500 col. pl. text-figs. T. of c. indexes.* *George R. Lockwood, New York.*

The quoted date is from the copyright notice. The above is the last complete edition of Audubon's *Birds of America* with impressions of the 1859 plates, in many instances somewhat worn. There are some textual variations from the octavo issue of 1860. Briefly collated the eight volumes in hand are as follows:
Vol. I. *pp. xv+246. 70 col. pl. 2 figs. in text.*
Vol. II. *pp. viii+199. 70 col. pl. 4 figs. in text.*
Vol. III. *pp. viii+233. 70 col. pl. 6 figs. in text.*
Vol. IV. *pp. viii+321. 70 col. pl. 28 figs. in text.*
Vol. V. *pp. viii+346. 50 col. pl. 14 figs. in text.*
Vol. VI. *pp. vii+298. 44 col. pl. 19 figs. in text.*
Vol. VII. *pp. vii+285. 46 col. pl. 12 figs. in text.*
Vol. VIII. *pp. viii+256. 60 col. pl. 12 text figs. index.*

****, **AUDUBON,** MARIA R. and **COUES,** ELLIOTT, eds.

1897. Audubon and his journals, with zoological and other notes. *2 vols. 8vo.* Vol. I, *pp. xiv+532. front. (portr.). 21 pl. T. of c.* Vol. II, *pp. viii+554+(2). front. 24 pl. (10 diplomas). T. of c. index.* *New York.*

This edition of the life of Audubon by his granddaughter, is probably more full, and more accurate, than any other heretofore appearing, containing as it does the European Journal of 1826, the Labrador Journal of 1833, and the Missouri River Journal of 1843, the first possibly being the most generally interesting. In addition to these Journals are the Episodes introduced in the letterpress of the first three volumes of the *Ornithological Biographies*, but are not in the octavo edition of the *Birds of America*, and it is believed no entire reprint of them has been made before. These are here arranged chronologically. Another edition appeared in 1900 (q.v.) with the word 'Illustrated' added to the title-page.

****, **AUDUBON,** MARIA R. and **COUES,** ELLIOTT, eds.

1900. Audubon and his journals. *Illust. 2 vols. 8vo.* Vol. I, *pp. xiv+532. front. (portr.). 21 pl. T. of c..* Vol. II, *pp. viii+554+(2). front. 24 pl. (10 diplomas). T. of c. index.* *New York.*

An edition which differs only from that of the original published in 1897 (q.v.) in having the word 'Illustrated' added to the title-page, and the attachment of two autographed letters from the editor, one to Dr. Casey Wood and the other to Miss Raymond regarding the receipt of some MSS. and other matters.

1901. *See* BUTTERWORTH, H.

1917. *See* HERRICK, F. H.

1930. The Journal of J. J. Audubon, 1820–21; also the Journal, 1840–41. Published by the *Club of Odd Volumes.* *Boston, Mass.*

Both these biographies are of importance to the student of zoology, and of the life of a distinguished naturalist.

1930. 'Audacious', Audubon. *See* MUSCHAMP, E. A.

AUDUBON, JOHN WOODHOUSE.

1906. Audubon's western journal. *Cleveland.*

AUDUBON, LUCY GREEN BAKEWELL [1788–1874].

1869. The life of John James Audubon, the naturalist. Ed. by his widow. With an introduction by Jas. Grant Wilson. *8vo. pp. (2)+x+11–443. front. (portr.). 1 fig. (vignette). T. of c.* *New York.*

Substantially the work edited by Lucy Audubon and Robt. Buchanan, 1868 (q.v.), with some additions, and the omission of several objectionable passages.

AUDUBON, MARIA R.

1897. Audubon and his journals, by M. R. Audubon, with zoological and other notes by E. Coues. *See* AUDUBON, J. J. and AUDUBON, MARIA R., etc., 1897; also the same title, 1900.

AUDUBON MAGAZINE, THE.

1887–8. Published in the interests of the Audubon Society for the protection of Birds. Monthly. Pictured wrappers. Forest and Stream Publishing Co., *New York.* Vol. I, No. 1. Feb. 1887–No. 12. Jan. 1888. *viii+288 pp. Illust.* Vol. II, No. 1. Feb. 1888–No. 12. Jan. 1889. *vi+264 pp. illust.* (All issued.)

During its brief career this, the official organ of the American Audubon Society, did excellent work in its chosen department and not only furnished useful information for the institution of branch societies in America but published papers of scientific value to ornithologists in general. Its activities are now continued by *Bird-Lore* (q.v.); also by the organs of State and other local Audubon Associations.
Each number contained a reduced black and white reproduction of an Audubon plate. Geo. B. Grinnell (Pres. of the Society), J. A. Allen, Robt. Ridgway, Florence A. Merriam, R. W. Shufeldt, and other well-known writers contributed to its columns. It is said that the connection with a paper devoted to the hunting of game was the chief cause of its suspension.

AUDUBON NATIONAL SOCIETIES. Bulletin. *See* NAT. ASSOC. OF AUD. SOC. BULLETIN.

AUDUBON POCKET BIRD COLLECTIONS.

n.d. Folders 1–4; 5×8 in. Pub. by the National Assocn. of Audubon Societies, New York. For teaching purposes.

AUDUBON SOCIETIES, NATIONAL ASSOCN. OF.

n.d. Bird Study Book and Pocket Nature Library *4 vols.* Ed. by T. Gilbert Pearson. *N.Y.*

AUDUBON SOCIETIES, NATIONAL.

1903–*date*. Educational Leaflets. Series to 1920 has 101 leaflets.

1904–*date*. Reports.

AUDUBON SOCIETY OF ILLINOIS. *See* ILLINOIS AUDUBON SOCIETY.

AUDUBON SOCIETY OF NEW HAMPSHIRE. (Bulletin. *4to.*)

July 1921–*date*. *8vo.* Incorporated under the laws of the State of New Hampshire for the protection of our native birds. *Strafford, N. H.*

This useful, well written little periodical concerns itself with the conservation of bird life and with the activities connected with it. It contains short papers of members of the Society, including Dr. George S. Foster, W. H. Huse, and others.
Vol. 1. 1921–2. No. 1, July–Sept. *15 pp.*; No. 2, Oct.–Dec. *13 pp.*; No. 3, Jan.–March 1922. *12 pp.*; No. 4, April–June. *14 pp.*
2. 1922–3. No. 1, July–Sept. *11 pp.*; No. 2, Oct.–Dec. *11 pp.*; No. 3, Jan.–March 1923. *10 pp.*; No. 4, April–June. *10 pp.*
3. 1923–4. No. 1, July–Sept. *11 pp.*; No. 2, Oct.–Dec. *11 pp.*; No. 3, Jan.–March 1924. *11 pp.*; No. 4, April–June. *10 pp.*

AUDUBON SOCIETY FOR THE PROTECTION OF BIRDS. *See* AUDUBON MAGAZINE.

AUDUBON SOCIETY OF THE WESTERN PACIFIC.
1923. Bulletin. *illust.*

AUGSBURG. BERICHT DER NATURHISTORISCHER VEREIN.
1848–*date. 4to and folio.* In 1887 the name of the *Verein* was changed to *Naturwissenschaftlicher Verein f. Schwaben u. Neuberg.* Nos. 1–7 are in 4to, the remainder folio. A subject index to 1896 is given in vol. XXXII.

AUK, THE. A Quarterly Journal of Ornithology.
1876–*date.* Published by the American Ornithologists' Union. *Cambridge, Mass.* With Index and table of contents to each vol. General Indexes.
This periodical began as *The Bulletin of the Nuttall Ornithological Club* (q.v.). Vols. 1 to 8, 1876–83, the initial issue of the *Auk* (pictured, tinted wrappers), being published as vol. IX, Old Series. Both serials are in detail as follows:
Bulletin of the Nuttall Ornithological Club. A Quarterly Journal of Ornithology.
Vol. I. 1876. Nos. I–IV, Apr. 1876–Nov. 1876. *115 pp. col. pl. index.*
Editor: J. A. Allen. Associate Editors: S. F. Baird and Elliott Coues.
Vol. II. 1877. Nos. I–IV, Jan.–Oct. *115 pp. index. illust.*
Vol. III. 1878. Nos. I–IV, Jan.–Oct. *200 pp. index. col. pl.*
Vol. IV. 1879. Nos. I–IV, Jan.–Oct. *256 pp. index. col. pl.*
Vol. V. 1880. Nos. I–IV, Jan.–Oct. *256 pp. index. col. pl.*
Vol. VI. 1881. Nos. I–IV, Jan.–Oct. *265 pp. index. col. pl.*
Vol. VII. 1882. Nos. I–IV, Jan.–Oct. *275 pp. index. col. pl.*
Vol. VIII. 1883. Nos. I–IV, Jan.–Oct. *260 pp. index. illust.*
The Auk (New Series). Continuation of the Bulletin N. O. Club.
Vol. IX, Old Series, 1884 (vol. I, New Series). Nos. I–IV, Jan.–Oct. *419 pp. index. col. pl.*
Editor: J. A. Allen. Associate Editors: Elliott Coues, Robt. Ridgway, William Brewster, Montague Chamberlin. Pub. by Estes and Lauriat, *Boston, Mass.*
Vol. X. 1885. (Old Series.) II. New Series. Nos. I–IV, Jan.–Oct. *411 pp. index. illust.*
Vol. XI. 1886. (O.S.) III. (N.S.) Nos. I–IV, Jan.–Oct. *529 pp. index. illust.*
Vol. XII. 1887. (IV. N.S.) Nos. I–IV, Jan.–Oct. *381 pp. index. illust.*
Pub. by L. S. Foster, *New York.*
Vol. XIII. 1888. (V. N.S.) Nos. I–IV, Jan.–Oct. *484 pp. index. illust.*
Sole Associate Editor: C. F. Batchelder.
Vol. XIV. 1889. (VI. N.S.) Nos. I–IV, Jan.–Oct. *359 pp. index. illust.*
Vol. XV. 1890. (VII. N.S.) Nos. I–IV, Jan.–Oct. *434 pp. index. illust.*
Vol. XVI. 1891. (VIII. N.S.) Nos. I–IV, Jan.–Oct. *421 pp. index. col. pl.*
Vol. XVII. 1892. (IX. N.S.) Nos. I–IV, Jan.–Oct. *420 pp. index. col. pl.*
Vol. XVIII. 1893. (X. N.S.) Nos. I–IV, Jan.–Oct. *407 pp. index. col. pl.*
Vol. XIX. 1894. (XI. N.S.) Nos. I–IV, Jan.–Oct. *359 pp. index. col. pl.*
Sole Associate Editor: Frank M. Chapman.
Vol. XX. 1895. (XII. N.S.) Nos. I–IV, Jan.–Oct. *418 pp. index. col. pl.*
Vol. XXI. 1896. (XIII. N.S.) Nos. I–IV, Jan.–Oct. *366 pp. index. col. pl.*
Vol. XXII. 1897. (XIV. N.S.) Nos. I–IV, Jan.–Oct. *452 pp. index. col. pl.*
Vol. XXIII. 1898. (XV. N.S.) Nos. I–IV, Jan.–Oct. *361 pp. index. col. pl.*
Vol. XXIV. 1899. (XVI. N.S.) Nos. I–IV, Jan.–Oct. *400 pp. index. col. pl.*
Vol. XXV. 1900. (XVII. N.S.) Nos. I–IV, Jan.–Oct. *424 pp. index. col. pl.*
[General] Index to *Bulletin* (vols. I–VII) and *The Auk* (vols. IX–XXV), 1876–1900. Ed. by Jonathan Dwight, Jr.
Vol. XXVI. 1901. (XVIII. N.S.) Nos. I–IV, Jan.–Oct. *436 pp. index. col. pl.*
Vol. XXVII. 1902. (XIX. N.S.) Nos. I–IV, Jan.–Oct. *447 pp. index. illust.*
Vol. XXVIII. 1903. (XX. N.S.) Nos. I–IV, Jan.–Oct. *480 pp. index. illust.*
Published by the Union at *Cambridge, Mass.*
Vol. XXIX. 1904. (XXI. N.S.) Nos. I–IV, Jan.–Oct. *531 pp. index. illust.*
Vol. XXX. 1905. (XXII. N.S.) Nos. I–IV, Jan.–Oct. *470 pp. index. illust.*
Vol. XXXI. 1906. (XXIII. N.S.) Nos. I–IV, Jan.–Oct. *518 pp. index. illust.*
Vol. XXXII. 1907. (XXIV. N.S.) Nos. I–IV, Jan.–Oct. *492 pp. index. illust.*
Vol. XXXIII. 1908. (XXV. N.S.) Nos. I–IV, Jan.–Oct. *533 pp. index. illust.*
Vol. XXXIV. 1909. (XXVI. N.S.) Nos. I–IV, Jan.–Oct. *483 pp. index. illust.*
Vol. XXXV. 1910. (XXVII. N.S.) Nos. I–IV, Jan.–Oct. *516 pp. index. illust.*
Ten-Year Index. Vols. XVIII–XXVII (N.S.), 1901–10. Ed. by T. S. Palmer and W. W. Cooke. *xxviii+250 pp.*
Vol. XXXVI. 1911. (XXVIII. N.S.) Nos. I–IV, Jan.–Oct. *549 pp. index. col. pl.*
Vol. XXXVII. 1912. (XXIX. N.S.) Nos. I–IV, Jan.–Oct. *604 pp. index. illust.*
Editor: Witmer Stone.
Vol. XXXVIII. 1913. (XXX. N.S.) Nos. I–IV, Jan.–Oct. *658 pp. index. illust.*
Vol. XXXIX. 1914. (XXXI. N.S.) Nos. I–IV, Jan.–Oct. *593 pp. index. illust.*
Vol. XL. 1915. (XXXII. N.S.) Nos. I–IV, Jan.–Oct. *568 pp. index. illust.*
Vol. XLI. 1916. (XXXIII. N.S.) Nos. I–IV, Jan.–Oct. *489 pp. index. illust.*
Vol. XLII. 1917. (XXXIV. N.S.) Nos. I–IV, Jan.–Oct. *542 pp. index. illust.*
Vol. XLIII. 1918. (XXXV. N.S.) Nos. I–IV, Jan.–Oct. *541 pp. index. illust.*
Vol. XLIV. 1919. (XXXVI. N.S.) Nos. I–IV, Jan.–Oct. *608 pp. index. illust.*
Vol. XLV. 1920. (XXXVII. N.S.) Nos. I–IV, Jan.–Oct. *675 pp. index. col. pl.*

Vol. XLVI. 1921. (XXXVIII. N.S.) Nos. I–IV, Jan.–Oct. *652 pp. index. illust.*
Vol. XLVII. 1922. (XXXIX. N.S.) Nos. I, Jan.→

This the premier ornithological magazine in the United States ranks easily among the two or three chief world periodicals on the subject. During a career covering more than half a century it has occupied a foremost place in avian literature, opening its columns not only to a discussion of subjects of local interest but to foreign contributions and to foreign writers. From the very beginning it has given much space to practical and carefully prepared critiques of ornithological publications in all languages and its General Notes are of the highest value to scholars and research students. Practically every American (including Canadian) ornithologist of note has contributed one or more articles to its volumes.
Of the earlier contributors may be mentioned—in addition to the editors and assistants—Bendire, Stejneger, Barrows, Shufeldt, E. W. Nelson, G. N. Lawrence, C. Hart Merriam, Henshaw, the Grinnells, S. A. Forbes, Cory, Walter Bryan, Wm. Dutcher, H. B. Bailey, W. E. Saunders, Thos. McIlwraith, H. Nehrling, T. S. Palmer, L. S. Foster, H. C. Oberhalser, Chas. W. Richmond, Jonathan Dwight, Jr., D. G. Elliot, Frank Chapman, and many another faithful worker—some of them still active members of the A.O.U.

AUKLET. An occasional journal of ornithological minutiae.
No. 2 sub-title reads: An occasional journal of awkward Murre-Murres.
No. 3 sub-title reads: A semi-occasional journal of ornithological disputanda.
Vol. 1, no. 1, Oct. 1920. *11 pp. illust.*
no. 2, Oct. 1922. *16 pp. illust.*
no. 3, Oct. 1923. *15 pp. illust.*
no. 4, Oct. 1925.

A facetious and anonymous periodical intended to furnish a little harmless fun at the expense of the members of the A.O.U. It may, in the distant future, possess some value in throwing light on the fads and fancies of contemporary ornithologists.

AURIVILLIUS, C. *See* LINNAEUS, C., 1907.

AUS DER HEIMAT. 1859–66. (Wanting.) *Glogau, Leipzig.*

AUS DER HEIMAT. Naturwiss. Zeitschrift. 1888–*date*. Hrsg. v. Dr. K. G. Lutz. Jahrg. 1. (Lehrverein für Naturkunde.) *Stuttgart.*

AUS DER HEIMAT, FÜR DIE HEIMAT. 1908–*date*. *Geestemünde.*

1898–1904. Sub-title: Jahrbuch des Vereins für Naturkunde an der Unterweser. (Wanting.)

AUS DER NATUR. 1852–75. *Leipzig.*

AUS DER NATUR. Zeitschrift für all. Naturfreunde. 1905–22. (Wanting.) *Leipzig.*

AUS DER NATUR. Zeitschrift f. d. naturwiss. u. erdkundl. Unterricht.
1905–15. Jahrg. 1–12. Hrsg. v. W. Schoenichen. *Leipzig.*

AUS NATUR UND KULTUR DER EIFEL. 1922. (Wanting.) *Bonn-a-Rhein.*

AUS NATUR UND MUSEUM. *See* SENCKENBERGISCHE NATURFORSCHENDE GESELLSCHAFT. BERICHT.

AUS NATUR UND TECHNIK. 1921–2. (Wanting.) *Zürich.*

AUS DER ORNITHOLOGISCHEN LITERATUR RUSSLANDS. BERICHTE UND ÜBERSETZUNG.
No. 1+ [1919?]+ *8vo.* Edited by Herman Grote. *Halle a. S.*

This periodical is published for the purpose of making available tothose who do not read Russian the most important ornithological literature (or a review of it) that has appeared in Russia since the Great War. Here are to be found German translations of contributions from the best known Russian naturalists—Shitkow, Bianchi, Sarudny, and others.
The fourth number contains the congratulations of the Editor to the veteran ornithologist, Professor Schalow, on his 70th birthday, and is issued as a 'Sonderheft' to mark the event.
1. *n.d.* [1919?] *pp. 1–16.*
2. *n.d.* [1920?] *pp. 17–32.*
3. Nov. 1921. *pp. 33–56.*
4. Jan. 1922. *pp. 57–72.*

AUSTEN, NATHANIEL LAURENCE [1847–74].
1877. Natural history papers and memoir of N. Laurence Austen. Edited by Frank Buckland. *8vo. pp. xliv+(2)+190. front.(portr.). 8 pl. T. of c.* *London.*

The Memoir occupies pp. ix–xliv, the Natural History Papers pp. 1–190. Among the latter are the nesting of the Eagle Owl at Croydon, Ravens nesting in confinement, Notes on the Golden-crested Wren, Habits of the Titmouse, Breeding Australian Paroquets, and on the form and structure of *Dinornis giganteus.*

AUSTEN, GODWIN-.
See GODWIN-AUSTEN.

AUSTRALASIAN ASSOCN. FOR THE ADVANCEMENT OF SCIENCE. Reports. 1888–*date*. *Sydney.*

(R.) AUSTRALASIAN ORNITHOLOGISTS' CLUB. *See* EMU.

AUSTRAL AVIAN RECORD, THE. A scientific Journal devoted Primarily to the Study of the Australian Avifauna. Issued in connection with the Austral Avian Museum, Watford, Herts, England.
1912–*date*. Editor: Gregory M. Mathews. *London,* Witherby & Co. *8vo.* Vols. I–V. 1912–22. Tinted, pictured wrappers. Issued irregularly. As a rule, 8 nos. to a volume. Indices. Each number has table of contents. Col. pl. and figures. Current. In detail:
Vol. I. 1912–13. Nos. 1–8, Jan. 1912–Mar. 1913. *196 pp.* Nos. 6 and 7, Feb. 1913, form a double part.
Vol. II. 1913–15. Nos. 1–8, Aug. 1913–Aug. 1915. *220 pp.* Nos. 2 and 3, Oct. 1913, form a single part. No. 8 is Index to vols. I and II. The Austral Avian Museum removed to Foulis Court, Fair Oak, Hampshire, England.
Vol. III. 1915–20. Nos. 1–8, June 1915–Feb. 1920. *180 pp. col. pls. and other figs.*
Vol. IV. May 1920–Mar. 1922. Nos. 1–7. *234 pp. index.* Nos. 2 and 3, 4 and 5 form double parts.
Vol. V. Nos. 1–3. [All published to June 3, 1923.]

This valuable journal is edited by and the contributions are chiefly from the pen of Gregory Mathews, the well-known author of the *Birds of Australia,* and by his associate Tom Iredale. A number of other ornithologists have furnished papers—practically all on the subject of Australasian bird life, and of its literature. It is beautifully illustrated by colored plates and well executed text figures.

AUSTRALIA FELIX. *See* WHEELWRIGHT, H. W., 1861.

AUSTRALIAN MUSEUM, SYDNEY.
1851–*date*. Memoirs.
1890–*date*. Miscellaneous Publications.
1890–*date*. Records.
1874–*date*. Reports.

[**AUSTRALIAN MUSEUM, SIDNEY** (*contd.*)]

1876–94. Catalogue of the Australian birds in the Australian Museum. *See* RAMSAY, EDWARD PIERSON.

1883. Catalogue of a collection of fossils in the Australian Museum. With introductory notes. *8vo. pp. xxviii+159. 1 table (fold.).* *Sydney.*

The present catalogue has been printed from the MS. of the dealer (T. H. Feilding) from whom it was purchased, hence occasional discrepancies in nomenclature. The introduction, pp. v–xxvi, gives a quick glance of the whole collection as it stands, which represents the succession of animals and plants which lived in the different ages of the earth. The fossil remains of birds are not very numerous, but references to those that do occur will be found in the introduction, pp. v–xxvi.

1883. Guide to the contents of the Australian Museum. *8vo. pp. 6+56.* *Sydney.*

1888. Catalogue of the fishes in the collection of the Australian Museum. Pt. 1. Recent palaeichthyan fishes by J. D. Ogilby. *8vo. pp. 6+26+[2].* *Sydney.*

1889. Lord Howe Island; its zoology, geology, and physical characters. *8vo. pp. (10)+132+(14). front. (map fold.). 10 pl. (3 maps fold., 1 col.). T. of c.* *Sydney.*

An account of the collections made by the Australian Museum collecting party, Aug.–Sept. 1887. The birds are described on pp. 8–18, with notes on the oology, pp. 45–8, and one plate. Forty-one species are listed, of which nine are peculiar to the island.

AUSTRALIAN NATURALIST. (Naturalists' Society of New South Wales.) **1906**–*date.* *Sydney.*

AUSTRALIAN ZOOLOGIST. (Royal Zoological Society of New South Wales.) **1914**–*date.* *Sydney.*

AUVERGNE. Bulletin de la Soc. d'hist. naturelle d'Auvergne.
1922–7. Nos. 1–12.

AVEBURY, *Lord. See* ANONYMOUS.
n.d. Marvels of the Universe.

AVERILL, CHARLES K., *Jr.*
1892. List of birds found in the vicinity of Bridgeport, Connecticut, prepared for the Bridgeport scientific society. *8vo. pp. 19.* *Bridgeport.*

A local list of 246 species.

AVERROËS. (ABU'L WELID MUHAMMAD IBN RUSHD AL-MALIKI) [1126–98].
5 Oct., 1482. Colliget. Ferrara, Lorenzo of Valenza, et Socii. *sm. folio. Editio princeps.* [O.]

The extremely rare first Latin edition of the works of this famous Arabian physician-naturalist.

1497. Destructiones destructionum (with Augustus Niphus: De sensu agente, etc.). Press of Bonetus Locatellus. *folio.* Partly reissues of Aristotle's *Physica,* etc. [O.] *Venice.*

The physician Averroës was the prominent 'liason' naturalist-philosopher that functioned for Arabian and European medieval thought. He was the chief commentator on and exponent of the Aristotelean system, and ought to be well considered by students of early biology. Osler says that 'he blazed a trail back to Aristotle but actually leading to Nature'.

Dec., 1497. Colliget (with Avenzoar: Liber Theizir). Press of Otinus de Luna. This is the third of the first eight printed editions of Averroës. [O.] *sm. folio.* *Venice.*

AVES BRITANNICAE.
1836. A Systematic Catalogue of British Birds. *8vo.* *Manchester.*

AVICENNA. [ABU 'ALI HUSAIN IBN SĪNĀ (980–1037).]
17th cent. Arabic MS. Kanun. 5 books. The famous author, physician, naturalist, and philosopher was born in Bokhara.

He compiled this large work which he called the Canon. It was much quoted by Arabians and other in the twelfth to fourteenth centuries and the doctrines taught were dominant in European medical schools during that period—and longer. He also wrote a work on animal life, based on the teachings of Aristotle. [O.]

n.d. [after 1500]. De Animalibus, translated by Michael Scott (J. and G. de Gregariis, *Venice*). Hain—C. 2220. Proctor 4563. [O.]

1891. Danish-nāma-i-Ala'i. Natural history and natural philosophy. Persian copy of the 11th-century original. *sm. 4to. pp. 72.* Lithographed. *Haydarabad.*

This well-known work, of which there are many editions, is very rare in the present state.

AVICULA, Giornale ornithologico italiano, per lo studio dell' Avifauna italica e per tutto quant oha relazione con gli uccelli in generale.
1897–1910. Vols. 1–14. [Cut of *Passer italicus,* with motto: Parvus sed omnino italicus.] *4to. col., tinted, pictured wrappers.* Bimonthly (double) numbers. Hon. Dir. Prof. Enrico Hillyer Giglioli and Count Prof. Tommaso Salvadori. Director Cav. Sigismondo Brogi, Siena. *Sienna.*
Parts designated 'Fasc.' on wrapper; 'N' on inner title-page. Suspended.
Anno I. Fasc. or Nos. 1–6, Jan.–Feb. 1897—Nov.–Dec. 1897. *184 pp. index.*
Anno II. Fasc. or Nos. 7–12, Jan.–Feb. 1898—Nov.–Dec. 1898. *152 pp. index.*
Anno III. Fasc. or Nos. 13/14–23/24, Jan.–Feb. 1899—Nov.–Dec. 1899. *188 pp. index.*
The Editor, Prof. Brogi, having died before the issue of Nos. 19/20 the conduct of Avicula was vested in the general 'Direzione'.
Anno IV. Fasc. or Nos. 25/26–35/36, Jan.–Feb. 1900—Nov.–Dec. 1900. *172 pp. index.*
Anno V. Fasc. or Nos. 37/38–47/48, Jan.–Feb. 1901—Nov.–Dec. 1901. *176 pp. index.*
Anno VI. Mar.–Apr. (51/52) is erroneously numbered as part of 'Anno. V'.
Anno VII. Fasc. or Nos. 61/62–71, Jan.–Feb. 1903—Nov.–Dec. 1903. *183 pp. index.*
Anno VIII. Fasc. or Nos. 73/74–83/84, Jan.–Feb. 1904—Nov.–Dec. 1904. *176 pp. index.*
Anno IX. Fasc. or Nos. 85/86–95/96, Jan.–Feb. 1905—Nov.–Dec. 1905. *168 pp. index.*
Anno X. Fasc. or Nos. 97/98–107/108, Jan.–Feb. 1906—Nov.–Dec. 1906. *148 pp. index.*
Anno XI. Fasc. or Nos. 109/110–119/120, Jan.–Feb. 1907—Nov.–Dec. 1907. *140 pp. index.*
Anno XII. Fasc. or Nos. 121/122–131/132, Jan.–Feb. 1908—Nov.–Dec. 1908. *126 pp. index.*
Double Fasc. or Nos. 129/132, Sept.–Dec. 1908.
Anno XIII. Fasc. or Nos. 133/134–143/144, Jan.–Feb. 1909—Nov.–Dec. 1909. *124 pp. index.*
Double Fasc. or Nos. 141/144, Sept.–Dec. 1909.
Anno XIV. Nos. 145–56, Jan. 1910–Dec. 1910. (Monthly.) *168 pp. index.* (All issued.)
The October number announced the suspension

of the Journal, which was probably due, in part at least, to the death of the editor, Prof. Giglioli.

Avicula was the earliest of the Italian scientific journals devoted to ornithology; and it had a useful career. In its pages are found much of the best work furnished by Italian naturalists; its editors, Giglioli, Salvadori, and Brogi constituting a trio well-known to the world of zoology.

L'AVICULTEUR.

1881–8. Published by M. Voitellier, *Nantes (Seine-et-Oise), France.* Weekly. *folio.* Each part (separate pagination) 4 pp. *illust. in text.* Except 1re Année, about 52 issues yearly. In detail:

1re Année. 1881. No. 1, Dec. 10–No. 4, Dec. 31. Four numbers in first volume. *illust.*

2e Année. 1882. No. 1, Jan. 7–No. 52, Dec. 30. *numerous illust.*

3e Année. 1884. No. 1, Jan. 5–No. 53, Dec. 27. *illust.*

4e Année. 1884. No. 1, Jan. 5–No. 53, Dec. 27. *illust.*

5e Année. 1885. No. 1, Jan. 3–No. 50, Dec. 26. *illust.*

6e Année. 1886. No. 1, Jan. 2–No. 52, Dec. 25. *illust.*

7e Année. 1887. No. 1, Jan. 1–No. 52, Dec. 31. *illust.*

8e Année. 1888. No. 1, Jan. 7–No. 52, Dec. 29. *illust.* (All issued?)

England and Germany are undoubtedly the leaders in European aviculture—foreign, domestic and 'farmyard'—and that is the reason, doubtless, why the corresponding French periodical literature is relatively so sparse. Of trade journals, *L'Aviculteur*, issued in newspaper form, is above the average and compares favourably with similar English publications. It is devoted chiefly to pigeon and poultry raising.

AVICULTOR. **1921**–*date.* *Mexico.*

AVICULTURAL MAGAZINE, THE. Being the Journal of the Aviculture Society for the study of Foreign and British Birds (later) in Freedom and in Captivity. Blk. and white and colored plates.

1894–*date.* Monthly. *8vo.* *Brighton, England*

First series in 8 vols. of 96 nos. with colored and other plates (1894 to 1902). In all 4 series, 1894–1931; and continuation. (First series, parts numbered consecutively.)

Vol. I. Nos. 1–12, Nov. 1894–Oct. 1895. Monthly. *132 pp. index.*

Vol. II. Nos. 13–24, Nov. 1895–Oct. 1896. *191+vii pp. index.*

The foregoing edited by C. S. Simpson, Secretary, and H. R. Fillmer, Treasurer, of the Aviculture Society.

Vol. III. Nos. 25–35, Nov. 1896–Oct. 1897. *209+xiv pp. index.*

The foregoing published by W. T. Moulton & Co., *Brighton.*

Vol. IV. Nos. 37–48, Nov. 1897–Oct. 1898. *212+xvi pp. index and several colored plates.*

Vol. V. Nos. 49–60, Nov. 1898–Oct. 1899. *195 pp. index.*

The last two vols. edited by the Hon. Secy. of The Society, H. R. Fillmer; published by Betts & Sons, *London.*

Vol. VI. No. 61–72, Nov. 1899–Oct. 1900. Renumbering of parts.

Vol. VII. Nos. 1–12, Nov. 1900–Oct. 1901. *234+vi pp. index.*

Vols. VI and VII were edited by O. E. Cressell and pub. by Betts & Sons.

New Series [Second Series].

Tinted wrapper (illustration, bird of paradise); sub-title—The Journal of the Avicultural Society. Title-page sub-title—The Journal of the Avicultural Society. Title-page sub-title (added). 'Study of Foreign and British Birds') in Freedom and Captivity. Edited by D. Seth-Smith. Pub. by R. H. Porter, *London.* Volumes in succeeding series are mostly in twelve monthly numbers.

Vol. I. Nos. 1–12, Nov. 1902–Oct. 1903. *431 pp. Many col. pl. index.*

Vol. II. Nos. 1–12, Nov. 1903–Oct. 1904. *380 pp. Many col. pl. index.*

Vol. III. Nos. 1–12, Nov. 1904–Oct. 1905. *394 pp. Many col. pl. index.*

Vol. IV. Nos. 1–12, Nov. 1905–Oct. 1906. *375 pp. Many col. pl. index.*

Vol. V. Nos. 1–12, Nov. 1906–Oct. 1907. *389 pp. Many col. pl. index and table of contents.*

Vol. VI. (Edited by David Seth-Smith and Arthur G. Butler.) Nos. 1–12, Nov. 1907–Oct. 1908. *359 pp. col. pl. index.*

Third Series.

Tinted, pictured (changed) wrapper (only name of Journal on wrapper title-page). Edited, Nov.–July, by Frank Finn; Aug.–Oct. J. Lewis Bonhote. Pub. by West Newman & Co., *London.*

Vol. I. Nos. 1–12, Nov. 1909–Oct. 1910. *374 pp. Many col. pl. index.*

Vol. II. Nos. 1–12, Nov. 1910–Oct. 1911. *394 pp. Index. col. pl.*

Vol. III. Nos. 1–12, Nov. 1911–Oct. 1912. *355 pp. col. pl. index.* (Vols. II and III edited entirely by J. Lewis Bonhote.)

Vol. IV. Nos. 1–12, Nov. 1912–Oct. 1913. *391 pp. Many black and col. pl. index.*

Vol. V. Nos. 1–12, Nov. 1913–Oct. 1914. *386 pp. Many black and col. pl. index.* Edited by Hubert D. Astley.

Vol. VI. Nos. 1–12, Nov. 1914–Oct. 1915. *396 pp. Many black and several col. pl. index.*

Vol. VII. Nos. 1–12, Nov. 1915–Oct. 1916. *356 pp. black and col. pl. index.*

Vol. VIII. Nos. 1–12, Nov. 1916–Oct. 1917. *364 pp. black and col. pl. index.*

Vol. IX. No. 1 and 12, Nov. 1917–Oct. 1918. *313 pp. illust. index.*

Editor: Dr. Graham Renshaw.

Vol. X. Nos. 1–14, Nov. 1918–Dec. 1919. *260+ix pp. illust. index.*

Vol. XI. Nos. 1–12, Jan. 1920–Dec. 1920. *214 pp. illust. index.*

Vol. XII. Nos. 1–12, Jan.–Dec. 1921. *188 pp. illust. index.*

Hon. Editors: D. Seth-Smith and R. I. Pocock.

Vol. XIII. No. 1→

This magazine is a scientific periodical of the greatest value not only to students of avian domestication but to ornithologists in general. It is well written (by numerous naturalists of note) and well edited by ornithologists of international repute. Finally, it is well printed. The illustrations, both black and colored, are of the best, although the latter were (very properly) omitted during the World War. It is appropriate that the premier magazine on general aviculture should be published in England, the home of domestic faunaculture.

AVICULTURAL SOCIETY. *London.*

1925. Aviculture, a treatise on the management of foreign and British birds in captivity, published by the Avicultural society. *8vo. pp. 2+326+7+16. 27 pl., 10 col. index. index to Latin names.* *Hertford.*

This useful volume is a 'practical manual of general utility on the keeping and rearing of birds. Published under the auspices of the Avicultural Society of London and *La Société Nationale d'Acclimatation de France*, by a Mixed Committee, and the Editors of the *Avicultural Magazine* and of *l'Oiseau*'.

AVICULTURAL SOCIETY OF CALIFORNIA. Bird news.

1909. Nos. 1–6, January–December. *8vo.* *San Francisco.*

Devoted to the interests of the bird fancier. Edited by F. W. D'Evelyn. W. W. Cooley, business manager. With pictured title-page.
Vol. I. Nos. 1–6, Jan.–Dec. 1909. *64 pp.* All issued. F. L. Burns gives the date 1901; the *Auk*, 1909. (Wanting.)

AVICULTURAL SOCIETY OF GREAT BRITAIN. *See* AVICULTURAL MAGAZINE.

AVICULTURE. *See* AVICULTURAL SOCIETY, LONDON, 1925.

AVICULTURE.

1929. Series II, vol. I– . Monthly. Pub. by the Avicultural Soc. of America. First two nos. appeared as The Avicultural Magazine. *4to.* *New York and Chicago.*

A flourishing and useful magazine devoted to the care and culture of bird life—foreign imports in particular. It is illustrated mostly by colored plates.

L'AVICULTURE PRATIQUE. Revue Bimensuelle Illustrée.

1912–14. Publiée avec le concours de Professeurs et d'Aviculteurs et avec le Patronage de Sociétés d'Aviculture. Organe official du Houdan-Faverolles-Club, ou Pavilly-Club, etc. Directeur Leon Lefêvre. *2 vols. and 4 monthly nos. 8vo. illust. Pictured wrappers.* Suspended (?). *Paris.*

1. Année. No. 1, July 15, 1912; and thereafter an issue every two weeks until No. 12, Dec. 30, 1912. *139 pp. black illust. index.*
2. Année. Nos. 13–14, Jan. 1913; and thereafter a double number every month until Nos. 23, 24, June; then (single) No. 25, July; and one number every month until No. 30, Dec. 1913. *76 pp.* Jan.–Aug.; thereafter each no. paged separately. *illust. T. of c.*
Sub-title changed to 'Organ Mensuel d'Aviculture, Élevage', etc.
3. Année. No. 31, Jan. 1914; No. 32, Feb. 1914; No. 33, Mar. 1914; No. 34, Apr. 1914 (all issued?).
Fondateur: Leon Lefêvre. Chief Editor: V. Duperrey.
Although at first devoted entirely to the culture of domestic birds this journal finally included barn-yard animals of all sorts. As such, it is an interesting periodical and gives a fair account of 'basse-cour' life in France during the years 1912–14.

AVIFAUNA, THE.

1895–7. Only three nos. were issued. Nos. 1 and 2 were published by W. H. Hoffman, *Los Angeles, Cal.*, No. 3, at *Santa Barbara, Cal.* Vol. I. No. 1, Sept. 1895; No. 2, Oct. 1895; No. 3, Sept. 1897. *8vo. 48 pp. illust. col. pictured wrappers.*

It contains several ornithological papers of interest to science. No. 2 (*4to. 17–32 pp. T. of c.*) has an instructive (illustrated) paper on the California Condor, by the Editor; contributions also from J. Grinnell, Lee Chambers, H. A. Gaylord, and others.

AVIS, RICHARD, *pseud.*

1870. The canary; its history, varieties, management and breeding. *8vo. pp. 48. front. (col.). T. of c.* *London.*

A little treatise on the breeding, rearing, and management of Canaries in health and sickness.

AYER, EDWARD E. Catalogue of the ornithological library, Field Museum of Natural History. *See* ZIMMER, JOHN TODD.

AZARA, *Don* FELIX DE [1746–1811].

1801. Essais sur l'Histoire nat. des Quadrupèdes du Paraguay, etc. *2 vols. 8vo.* *Paris.*

One of the most important early treatises on South American zoology by a famous naturalist. There were several editions and translations of this author's works in Spanish, French, German, and English, most of which are in the McGill libraries.

1802–5. Apuntamientos para la Historia Natural De Los Páraxos del Paragüay, etc. *3 vols.* *Madrid.*

1809. Voyages dans l'Amérique Méridionale, etc. *4 vols. text and 2 vols. plates.* *Paris.*

1810. Reise nach Sued Amerika, etc. *8vo.* *Berlin.*

1838. The Nat. Hist. of the Quadrupeds of Paraguay, etc. Vol. I (all pub.). *8vo.* *Edinburgh.*

B**.**

1808. Aviceptologie Française. *Paris.*

BABAULT, GUY.

1916–23. Voyage de Guy Babault dans l'Afrique orientale anglaise. Résultats scientifiques. Vols. [1–13]. *sq. 4to. illust. pl.* *Paris.*

Of the vertebrates the birds (vol. XI) are by A. Ménégaux; mammals by Max Kollman.

1920–4. Mission Guy Babault dans les provinces centrales de l'Inde dans la région occidentale de l'Himalaya et Ceylen, **1914.** Résultats scientifiques. *5 vols. 4to. illust. pl. maps.* *Paris.*

CONTENTS. Vol. [1]. Oiseaux par Guy Babault. [4]. Reptiles et Batraciens par Paul Chabanaud.

The first part contains the ecological description of the stations. The second part consists of an account of the birds met with on the elevated chain of mountains between the Punjab and the Indus, extending to the sources of the Indus, up to the borders of Kashmir.

1921. Recherches zoologiques dans . . . l'Inde, etc.

1922. Recherches zoologiques dans les provinces centrales de l'Inde et dans les régions occidentales de l'Himalaya. Ouvrage illustré de 80 reproductions photographiques hors texte et de quatre cartes. *25½ cm. 2 pp. l., iii, 238 pp., 1 l. pl. 4 maps (2 fold.).* *Paris.*

This volume contains the personal narrative and incidents of the expedition known as the *Mission Guy Babault*. The ornithological results are published separately.

1923. *See* MÉNÉGAUX, HENRI AUGUSTE.

1924. Voyage de Guy Babault en Tunisie. Résultats scientifiques. Oiseaux par Louis Lavauden. *folio. 279 pp. pl. maps.* *Paris.*

The plates by N. Boudarel are worthy of mention, especially the last one of the sand-grouse (*Pterocles coronatus*).

BABCOCK, ERNEST BROWN [1877–] and **CLAUSEN,** ROY ELWOOD.

1918. Genetics in relation to agriculture. *8vo. pp. xx+675. front. (col.). 3 pl. (col.). 239 figs. T. of c. glossary. bibliogr. index.* *New York.*

An adequate presentation in a single text of the facts and principles of genetics and their practical applications. References to birds are numerous under such headings as Hybrid birds, sex-determination in, sex-linked inheritance, song in male, and sterility in hybrids, with one coloured plate. First edition.

1927. Genetics in relation to agriculture. *2nd ed. 8vo. pp. (6)+ix–xiv+673. 3 pl. (col.). 203 figs. T. of c. New York.*

An almost entirely re-written edition of the first issue (1918); made necessary by the tremendous advances in theoretical and applied genetics. There are many extra references to birds and an additional coloured plate has been added. The Glossary is omitted in this edition.

BABINGTON, CHURCHILL [1821–89].

1884–6. Catalogue of the birds of Suffolk, with remarks on their distribution. *8vo. pp. (7)+281. front. (map). 7 pl. T. of c. addenda. index. London.*

An account of the distribution and whether nesting, of the 292 species enumerated.

BABSON, WILLIAM ARTHUR.

1901. Bulletin of The Bird Club of Princeton University . . . The birds of Princeton, New Jersey, and vicinity. *8vo. pp. 82+vii+(3). index. Princeton.*

An annotated list of 230 species and subspecies recorded for the district, which embraces the circular area described with an eight-mile radius from the town of Princeton as a centre. This does not, however, include any part of the Delaware River, or many more of the water birds would have been recorded, the 50 species included having all been observed near the small ponds and streams in the neighbourhood. A separate list is given of the breeding species with dates.

BACKHOUSE, JAMES [1794–1869].

1843. Narrative of a Visit to the Australian Colonies. *8vo. pp. 16+648+56. 16 pl. 2 maps. illust. text. append. London.*

Rather rare. Frequent references to the faunal life of the colonies.

BACKHOUSE, JAMES, *the Younger* [1825–90].

1890. A handbook of European birds for the use of field naturalists and collectors. *sm. 8vo. pp. viii+334. index. front. London.*

A useful pocket manual devoid, however, of illustrations. The library copy is interleaved and was evidently intended to be used for a second edition, which never appeared.

BACON, FRANCIS *Baron Verulam* [1561–1626].

1651. Sylva sylvarum; or, A naturall history in ten centuries. *4to. pp. [16]+218+[22]. port. London.*

Although primarily intended to be a work on trees, there are many interesting references to the natural history of vertebrates by this illustrious writer.

BADISCHER LANDESVEREIN FÜR NATURKUNDE UND NATURSCHUTZ. *Freiburg-i-B.*

1882–1915. Mitteilungen.

1919–*date*. Mitteilungen. New series.

BADISCHER ZOOLOGISCHER VEREIN. *Karlsruhe.*

1889–1907. Mitteilungen. Merged into Badischer Landesverein für Naturkunde und Naturschutz.

BAEDEKER, FRIEDRICH W. J.

1855–63. Die Eier der europaeischen Voegel nach der Natur gemalt. Mit einer Beschreibung des Nestbaues gemeinschaftlich bearbeitet mit L. Brehm und W. Paessler. *folio. pp. 26. 8 col. pl. [Leipzig.]*

The volume in hand forms only one part of the whole work (on the eggs of European birds), the eight colored plates depicting the eggs of 37 described species. The treatise was issued 1855–63 in ten parts with text and 80 colored plates.

BAER, KARL ERNST VON [1792–1876].

1828. Über Entwickelungsgeschichte der Thiere; Beobachtung und Reflexion. *2 vols. in 1. 4to. pl. Königsberg.*

1886. *See* STIEDA, LUDWIG.

BAERIUS, NICOLAS [1639–1714].

1695. Ornithophonia; sive, Harmonia melicarum avium juxta naturas, virtutes & proprietates suas, carmine latino-germanico decantatarum, [etc.]. *8vo. pp. [8]+384. illust. Bremae.*

Contains nine woodcut figures of birds colored by hand with descriptions in Latin elegiacs and in German rhymed verse. A rare title.

BAGEHOT, WALTER [1826–77].

1873. Physics and Politics, etc. *8vo.* [O.] *New York.*

BAHR, PHILIP HEINRICH.

1907. (The) home-life of some marsh-birds, &c. *See* TURNER, E. L.

BAIKIE, WILLIAM BALFOUR [1825–64] and **HEDDLE,** R.

1848. Historia Naturalis Orcadensis. *1 vol. 8vo. Edinburgh.*

BAILEY, B. H.

1918. The Raptorial Birds of Iowa. *pp. 238. 93 figs.*

BAILEY-CHURCHILL, A.

1926. Living things. A book of elementary Nature Study. *12mo. pp. viii+144. T. of c. Several pl.; numerous cuts in text. London.*

BAILEY, *Mrs.* FLORENCE AUGUSTA (MERRIAM) [1863–].

1889. Birds through an opera-glass. *8vo. pp. xiii +(1)+223. 16 figs. T. of c. append. bibliogr. index. Boston.*

A popular account of 70 New England birds, the work being issued as No. 3 of 'The Riverside Library for Young People', the illustrations from Baird, Brewer, and Ridgway, *A History of North American Birds*, 1874.

1896. A-birding on a bronco. *8vo. pp. x+226+(1). front. 10 pl. 23 figs. T. of c. 2 indexes. Boston.*

A popular account of the author's ornithological observations in Southern California.

1898. Birds of village and field, a bird book for beginners. *8vo. pp. xlix+(1)+406. illust. front. 27 pl. 220 figs.+(71). T. of c. append. bibliogr. index. Boston.*

A popular handbook of birds with numerous keys to the species based on colors; also accounts of their habits, and distribution, etc. The appendix contains migration and residence lists as well as a bibliography.

1898. Birds of New Mexico. *pp. 800. illust.*

A useful treatise published by the N.M. Dept. of Fish and Game Santa Fe.

1902. Handbook of Birds of the Western United States.

The first edition of this well-known text-book, written in clear and precise language and properly illustrated.

[1908]. Handbook of birds of the western United States including the great plains, great basin, Pacific slope, lower Rio Grande Valley, with thirty-three full-page plates by Louis Agassiz Fuertes, and over six hundred cuts in the text. *8vo. pp. xc+514. front. 33 pl. 1 map. 3 diagr. 601 figs. T. of c. bibliogr. append. addend. index. Boston.*

In the present (third) edition, all errors have been corrected, and many photographs replaced with drawings by Mr. Kako Morita.

[**BAILEY,** *Mrs.* F. A. (MERRIAM) (*contd.*)]

1918. Wild animals of Glacier national park. The mammals, . . . by V. Bailey . . . The birds, by F. A. Bailey. *See* BAILEY, V. and BAILEY, F. A. (*born* Merriam).

1921. Handbook of birds of the Western United States. Including the Great Plains, Great Basin, Pacific Slope, and Lower Rio Grande Valley. With thirty-three full-page plates by Louis Agassiz Fuertes, and over six hundred cuts in the text. *rev. ed. 8vo. pp. li+(1)+590. front. 33 pl. 1 map. 3 diagr. 601 figs. T. of c. append. addend. index.* *Boston.*

A most carefully prepared 'Handbook' with short accounts of each species, keys for easily distinguishing them, and addenda giving changes in nomenclature brought up to date.

1928. Birds of New Mexico; with contributions by W. W. Cooke. Illustrated with colored plates by Allan Brooks, plates and text figures by the late Louis Agassiz Fuertes. Based mainly on field work of the Bureau of biological survey, U.S. Dept. of agriculture. *8vo. pp. xxiv+807. front. (col.). 78 pl. (24 col. 1 map). 136 figs. 62 maps (2 diagr.). T. of c. bibliogr.* *Washington, D.C.*

The first comprehensive account of the avifauna of American South-west. Various plumages of species are described, followed in most cases by a paragraph on 'comparisons', contrasting the species with its nearest allies particularly as seen in the field. Following this comes the range of the bird with a summary of 'State Records' covering its distribution in New Mexico. Other paragraphs cover nest, eggs, and food, as well as general habits.

BAILEY, H. B.

1881. 'Forest and stream' bird notes; an index and summary of all the ornithological matter contained in *Forest and Stream,* vols. 1–12. *8vo. pp. iv+195. index.* *New York.*

A complete index to the many valuable notes scattered through the files of the magazine as well as a digest of each note or article, the reader having at hand much more than a simple index, thus making it often unnecessary to refer to the original volume.

BAILEY, HAROLD HARRIS [1879–].

1913. The birds of Virginia. With fourteen full page colored plates, one map, and one hundred and eight half-tones taken from nature. Treating one hundred and eighty-five species and subspecies; all the birds that breed within the state. *8vo. pp. xxiii+(1)+362. front. (col.). 13 pl. (col.). 185 half-tones. 1 map (fold.). index.* *Lynchburg, Va.*

1925. The birds of Florida; a popular and scientific account of the 425 species and subspecies of birds that are now, and that have been found within the state and its adjacent waters; with special reference to their relation to agriculture; illustrated with 76 full page four-color plates,—figuring over 480 birds, by Geo. M. Sutton; and with an outline map of the state showing areas; and a topographical drawing of a bird . . . Limited ed. *4to. pp. xxi+(1)+146. 76 pl. (col.). 1 diagr. 1 map (fold.). index.* *Baltimore, Md.*

BAILEY, LORING WOART [1839–1911].

1887. Elementary natural history; introd. to the study of minerals, plants and animals, with special reference to those of New Brunswick. *8vo. pp. vi+94. 4 pl. T. of c.* *Saint John, N.B.*

An elementary account of the position birds occupy in the animal kingdom, plate 4 depicting a few types of certain families of birds.

BAILEY, VERNON [1864–].

1913. Life zones and crop zones of New Mexico. *Washington.*

A valuable contribution to local economic zoogeography.

****** and BAILEY,** FLORENCE MERRIAM.

1918. Wild animals of Glacier national park. The mammals, with notes on physiography and life zones. The birds, by Florence Merriam Bailey. *8vo. pp. 210. 37 pl. (1 map fold. col.). 94 figs. T. of c. index.* *Washington.*

1928. Animal life of the Carlsbad Cavern. *8vo. pp. xiii+(1)+195. front. 67 figs. T. of c. index.* *Baltimore.*

A monograph (American Soc. of Mammalogists) of the most extensive and spectacular cavern yet discovered in America, situated in the Pecos River Valley of south-eastern New Mexico. The birds of the region are described in chapter VI, pp. 130–62, accompanied by eight illustrations.

1930. Animal Life of Yellowstone Park. *8vo. pp. 12+232. illust. index.* *Springfield, Ill.*

A reliable and well-written account of the animals (including fishes, reptiles, and amphibia) in a specialized region of the Middle West of North America. The writer is Chief Field Naturalist of the U.S. Biological Survey.

BAILEY MUSEUM AND LIBRARY OF NATURAL HISTORY. *Newport, News., Va.*

1920–*date.* Bulletin.

BAILLIE-GROHMAN, F. **1904.** *See* EDWARD, of Norwich.

BAILLIE-GROHMAN, WM. A. **1904.** *See* EDWARD, of Norwich.

BAILLY, JEAN BAPTISTE [1822–].

1853–5. Ornithologie de la Savoie, etc. *4 vols. and atlas. 8vo.* *Paris.*

BAILY, WILLIAM L.

1869. Our own birds; a familiar natural history of the birds of the United States. Rev. and ed. by E. D. Cope. *8vo. pp. x+11–265. front. 9 pl. 55 figs. (1 diagr.). T. of c. index.* *Philadelphia.*

A popular account of the birds of the United States, intended principally for youthful readers.

1874. Our own birds; a familiar natural history of the birds of the United States. Rev. and ed. by Edward D. Cope. *8vo. pp. x+11–265. front. 9 pl. 55 figs. (1 diagr.). T. of c. index.* *Philadelphia.*

1874. Our own birds, and Trees, plants and flowers. *2 vols. in 1.* [*Philadelphia.*]

1875. Our own birds. A familiar natural history of the birds of the United States. Revised and edited by Edward D. Cope. *8vo. pp. x+11–265. front. 9 pl. 50 figs. T. of c. index.* *Philadelphia.*

A reprint, with slightly altered title, of the edition of 1874.

?1876. The Birds of America: a familiar Natural History, etc. *8vo.* *London.*

An English edition of this familiar work.

BAIN, FRANCIS.

1890. The natural history of Prince Edward Island. Authorized for the use of schools by the Board of education. *16mo. pp. viii+9–123. front. 45 figs. T. of c. glossary.* *Charlottetown, P.E.I.*

Intended as an introduction to the study of the natural history of Prince Edward Island, for the use of Primary Schools. Birds are discussed on pp. 108–17, with one illustration.

BAIRD, SPENCER FULLERTON [1823–87].

1852. Quadrupeds and birds by S. F. Baird. Reptiles by S. F. Baird and C. F. Girard. *8vo. pp.* [*75*]. Appendix C. Zoology of U.S.—Engineers, Corps of. Expedition to the valley of the Great Salt Lake of Utah, pp. 307–79. *Philadelphia.*

**** and **STANSBURY,** HOWARD.

1852. Exploration and Survey of the Valley of the Great Salt Lake of Utah. *8vo. Philadelphia.*

**** and **GIRARD,** C. F.

1852. An expedition to the Valley of the Great Salt Lake, etc. *8vo.*

This is really an account of the reptiles of Utah. *See also* STANSBURY, H.

1853. *See* UNITED STATES.

1855–9. *See* UNITED STATES. *Pacific Rd. Survey.*

1857–9. Mammals of North America. *4to. pp. 34+764+55. 3 pls. 87 col. pl. Philadelphia.*

This important and well-known treatise is a reprint of portions of the Reports of the Pacific Railway and Mexican Boundary Survey Expedition.

[**1858**]. Catalogue of North American birds chiefly in the museum of the Smithsonian Institution. *folio. pp. 19. blue paper. no t.-p.*

According to Zimmer (*Ayer Catalogue*, p. 32) in its folio form it consists of 'a simple list of 738 names in Latin and English, with serial numbers, and without any indication of the distribution of species as given in the original; it was designed, according to the introduction, to facilitate the labelling of specimens and to serve the purpose of a check-list. According to Coues, some copies were issued, printed on but one side of the paper, for further use in labelling specimens'. The present copy is from the P. L. Sclater library.

1858. Catalogue of North American birds, chiefly in the museum of the Smithsonian institution. *4to. pp.* (*2*)+*xvii–lvi*+(*2*). *Washington.*

Separate reissue of the author's main work. Besides the list of 738 species, with habitats, these sheets contain a table of the higher groups. The species being all numbered the brochure was much in use for several years as a convenient reference.

1858. Catalogue of North American birds, chiefly in the museum of the Smithsonian institution. *folio. pp.* (*2*)+*xvii–lvi*+*25 leaves* (*blank*). *Washington.*

A portion of the report on North American Birds in vol. IX of the *Reports of the Pacific Railroad Survey*, and here published as a separate paper by the Institution. An abridged octavo edition was issued in 1859 (q.v.).

1858. Reports of explorations and surveys . . . for a railroad from the Mississippi River to the Pacific Ocean . . . Birds; by Spencer F. Baird, &c. *See* U.S. PACIFIC RAILROAD SURVEYS.

[**1859**]. Birds of the boundary. With notes by the naturalists of the Survey. *4to. pp.* (*2*)+*3–32. 25 pl.* (*col.*). *index.* [*Washington.*]

The whole work is in 2 vols., the present portion being vol. II, pt. II, relating to the birds. The article is merely a list of the specimens collected by the Commission, the text being comparatively unimportant (the species being worked up elsewhere), but it is accompanied by 25 beautiful colored plates, wanting in the present copy.

1859. Catalogue of North American birds, chiefly in the museum of the Smithsonian institution. [*First octavo edition.*] *pp.* (*2*)+*19*+(*3*). *index.* *Washington.*

A check-list of 738 species and subspecies, with scientific and vernacular names, reprinted with some changes from the quarto, forming a portion of the report on North American Birds, in vol. IX of the *Reports of the Pacific Railroad Survey*, and published as a separate paper by the Institution in October 1858 (q.v.).

1859. Mammals of North America; the descriptions of species based chiefly on the collections in the museum of the Smithsonian Institution. Phila. *3 pts. in 1 vol. folio. pl.* *Washington, D.C.*

Pt. 1 is a reprint of the 'Report on mammals', presented to the Dept. of War, and pub. in 1857, as one of the series of *Reports of explorations and surveys for a railroad route to the Pacific Ocean*. Pt. 2 is a reprint of the special 'Report on mammals' of the U.S. and Mexican boundary survey. Pt. 3 consists of plates, comprising those in the two preceding Reports and a few additional ones.

**** and **EMORY,** *Major* WILLIAM H.

1859. Report on the U.S. and Mexican Boundary Survey, etc. Binder's title, 'Zoology of the Boundary'. *Washington.*

**** with **CASSIN,** J. and **LAWRENCE,** G. N.

1860. Birds of North America; the descriptions of species based chiefly on the collections in the museum of the Smithsonian Institution. Atlas of one hundred plates. *2 vols. 4to.* Vol. 1, *pp.* (*4*)+*lvi*+*1005. T. of c. 3 append. bibliogr. 2 indexes.* (Vol. 2, wanting.) *Philadelphia.*

The main body of text (pp. 1–1005) is identical with the same pages in vol. IX of the U.S. Pacific Railroad Surveys, *Reports of Explorations*, etc. (q.v.), and pp. i–vi represent pp. xi–xvi of the same, reset and dated 'October 20, 1858', instead of 'October 20, 1853'. Pp. vii–xv+1, containing the explanation of plates and systematic list of illustrations, are new. In the present copy the plates forming vol. 2 are wanting.
Under the present title, the work was reissued in 1870 (q.v.) with some changes.

1863. List of the Described Birds of Mexico—not in the Smithsonian. *8vo pamphlet.*

Author's separate.

1864–72. Smithsonian miscellaneous collections, 181. Review of American birds in the museum of the Smithsonian institution. Part 1. *8vo. pp. vi+478. 57 figs. T. of c. index.* *Washington.*

The final form of this paper, which was originally issued in sheets, as fast as it was printed, distributed to various ornithologists for the purpose of eliciting criticisms and suggestions. Pagination extended only to p. 450, and the title-page was slightly different from the present one. Later, for the present edition, the title-page was changed, the preliminary advertisement altered, an introduction written, the table of contents completed (to include the Vireonidæ, Ampelidæ, and Laniidæ), a list of species and index added on pp. 450–78, and the work was reissued in one volume. The final signature is dated January 1873, although the title-page cites 1864–72 only.

[**1866**]. Arrangement of families of Birds. [Adapted provisionally by the Smithsonian Institution.] *8vo. pp. 8. no t.-p.*

A pamphlet stating that the classification of birds presented is based essentially upon that of Prof. Lilljeborg, of Upsala (published in the *Proceedings of the Zoological Society of London* for January 1866), and has been adopted provisionally in the arrangement of the birds in the museum of the Smithsonian Institution.

1866. The distribution and migrations of North American birds. *8vo. pp. 33.*

An abstract of a Memoir presented to the National Academy of Sciences, January 1865. Author's separate from the *American Journal of Science and Arts*, vol. XLI, January and May 1866.

[**BAIRD,** S. F. (*contd.*)]

1870. Geological Survey of California. Vol. I. Land birds. Edited by S. F. Baird from the manuscript and notes of J. G. Cooper. *See* COOPER, J. G.

1870. The Birds of North America, descriptions of species based chiefly on the collections in the museum of the Smithsonian Institution. By Spencer F. Baird, with the co-operation of John Cassin, and George N. Lawrence. With an atlas of one hundred plates. *2 vols. 4to.* Vol. 1, *pp. (2)+vii+(1)+xvii–lvi+1000. T. of c. 3 append. bibliogr. 2 indexes.* Vol. 2, *pp. (2)+vii+(1). 100 pl. (col.).* *Salem.*

A later edition of the work of the same title published in 1860 (q.v.), with certain alterations. The title is changed; the prefaces of text and atlas are reset and differently paged, with that of the text occupying fewer pages; the table of contents of the text is slightly altered to accord with the changed pagination; the explanation of plates is reset on fewer pages and omitted from the volume of text, being found only in the atlas; the systematic list of illustrations is entirely omitted; most of the plates are retouched and renumbered or relettered, and in many cases are somewhat different in coloration from the originals. The general descriptive text appears to be the same in both editions.

******** and **others.**

1874. A history of North American birds. Land birds. *3 vols. 4to. pl. and 593 woodcuts.* Vol. 1, *pp. xxviii+596+vi. 26 pl. T. of c. index.* Vol. 2, *pp. (6)+590+vi. 30 pl. T. of c. index.* Vol. 3, *pp. (6)+560+xxviii. 8 pl. T. of c. append. glossary. 3 indexes.* *Boston.*

This is the first edition with uncolored plates; an authoritative work dealing with the life-histories and habits of the land birds of North America north of Mexico. The work was issued also with colored plates. A companion work in two volumes by the same authors is the *Water Birds of North America*, 1884 (q.v.), issued as *Memoirs of the Museum of Comparative Zoology at Harvard College*, vol. XII. In the present work Gill is responsible for the portion of the introduction (pp. xi-xiv, vol. I) relating to birds as distinguished from other vertebrates, and Coues prepared the tables of the orders and families (pp. xiv–xxviii, vol. I) and the glossary (pp. 535–60, vol. III).

******** with **BREWER, RIDGWAY, COUES,** and **GILL.**

1875. A history of North American Birds. Land Birds. Illustrated by 64 Chromo-Lithographic Plates and 593 Woodcuts. *3 vols. 4to.* Vol. I, *pp. xxviii+596+vi. vignette. 26 pl. (col.). 184 figs. T. of c. index.* Vol. II, *pp. (6)+590+vi. vignette. 30 pl. (col.). 170 figs. T. of c. index.* Vol. III, *pp. (6)+560+(2)+xxviii. vignette. 8 pl. (col.). 232 figs. T. of c. append. glossary. 3 indexes.* *Boston.*

Similar in every respect to the edition of 1874 (q.v.) except that *the plates are colored* instead of plain. Copies of this second edition exist which contain 36 additional color plates (unnumbered) of birds drawn by Robert Ridgway not mentioned in the titles.

1878. American ornithology, &c., by A. Wilson and C. L. Bonaparte. Pop. ed. [containing a catalogue of North American birds by Baird]. *See* WILSON, A. and BONAPARTE, C. L.

******** with **BREWER** and **RIDGWAY.**

1884. The Water Birds of North America. [Vol. XII. Memoirs Mus. Comp. Zoology, Cambridge, Mass. Harvard Univ.] *2 vols. 4to.* Issued in continuation of the Publications of the Geological Survey of California. Vol. 1, *pp. xi+(1)+537. 211 figs. T. of c.* Vol. 2, *pp. (6)+552. 282 figs. T. of c. 2 indexes.* *Boston.*

The present work is, in reality, part of the same treatise as *A History of North American Birds—Land Birds*, 1874 (q.v.), by the same authors, the two titles together forming the complete set. An edition was issued, also, with colored figures. The volumes were to have been published by the Geological Survey of California as a complement to *Ornithology, vol. I, Land Birds*, by J. G. Cooper, 1870 (q.v.), in return for the use of the illustrations of Cooper's work for the volumes on the Land Birds by the present authors—hence the reference in the title.

BAIRD, WILLIAM [1803–72].

1860. A dictionary of natural history. Map and numerous illustrations. *8vo. pp. (2)+v–xvi+613. front. (map col. fold.). 216 figs. (44 birds). T. of c. glossary. index.* *London.*

A succinct account of the most interesting objects in the Animal, Vegetable, and Mineral Kingdoms, with an explanation of various terms used by authors in treating of them. The map shows the distribution of animals over the globe.

BAIRNSFATHER, P. R.

1914. Sport and nature in the Himalayas; ed. by F. G. Aflalo. *8vo. illust. pp. xv+(1)+137. front. (portr.). 6 figs. T. of c. index.* *London.*

Little memories—as the author calls them—of outdoor life in the Himalayas, some chapters of which first appeared elsewhere.

BAJON [?1720–90].

1777–8. Mémoires pour servir à l'histoire de Cayenne, et de la Guiane Françoise, etc. *2 vols. illust.* *Paris.*

An early account of the natural history of French Guiana.

BAKER, EDWARD CHARLES STUART.

1900–1. The Birds of Cachar. *pp. 1–50, 1–35, 1–26, 339–71, 539–67, 222–33, 390–405, 486–510, 399–405, 564–70. 9 col. pl* (originals painted by the author).

Although this specially bound book is made up of extracts from the *Journal of the Bombay Natural History Society* it is given a separate, distinctive title-page, and forms, *inter alia*, a concise and excellent account of many Indian hill species in which a large number of Burmese forms occur. The present volume is a presentation copy to the Compiler of this Catalogue.

1908. The Indian ducks and their allies. *large 8vo. pp. xii+292. 30 pl. (col.). 1 pl. (title). T. of c. index.* *London.*

This work consists of a series of articles contributed to the *Journal of the Bombay Natural History Society*, which are here reprinted with additions and corrections to bring the list up to date. The work was afterwards incorporated as vol. I of *The Game-Birds of India, Burma and Ceylon*, 1921 (q.v.), by the same author, with the addition of four extra plates, and alterations and additions to others. The text also was revised to bring the work up to date.

1913. Indian pigeons and doves. With 27 col. pl. *folio. pp. xv+(1)+260. front. (col.). 26 pl. (col.). T. of c. bibliogr. index.* *London.*

Fifty-one species and subspecies are dealt with in this semi-popular work. It is the first book to introduce the trinominal system into India. Following the synonymy of each species are the vernacular names, if any, with a description of adults and young, distribution, nidification, and general account of habits, etc., forming a companion volume to the author's *Game-Birds of India, Burma and Ceylon*, 1921 (q.v.). Several of the original colored drawings by Grönvold, made for this treatise, as well as others by the author are in the E.S.W. Library.

1921. The game-birds of India, Burma and Ceylon. *2 vols. 8vo.* Vol. 1, *pp. xvi+340. 30 pl. (col.). 4 pl. (1 title). bibliogr. index.* Vol. 2, *pp. xvi+328. 19 pl. (col.). 7 pl. (1 title). bibliogr. index.* *London.*

Based on articles in the *Journal of the Bombay Natural History Society* from 1896 onward, revised and corrected. Vol. I, with modifications, appeared as a separate work in 1908 under the title *The Indian Ducks and their Allies* (q.v.).

1922–30. Birds of British India, including Ceylon and Burma. Forming part of the Fauna of British India. Published under the authority of the Secretary of State for India. Birds, vols. 1–6. Second edition. Vol. 1, *pp. xxiii+(1)+479. front. (col.). 7 pl. (col.). 101 figs. (1 diagr.). 2 indexes.*

Vol. 2, *pp. xxiii+(1)+561. front. (col.). 7 pl. (col.). 86 figs. 2 indexes.* *London.*

This edition is to replace the out-of-date one by Oates and Blanford issued in 1889–98 (q.v.). The general plan of the work is much the same as the previous one except that modern nomenclature has been adopted, with other changes necessary to bring it up to date. Text figures and colored plates have been added. The complete ornithological series is planned to occupy six volumes.

[**1923**]. A hand-list of genera and species of birds of the Indian empire. Author's repr. from the *Journal of the Bombay Nat. Hist. Soc.* together with a foreword, addenda, and corrigenda. *8vo. pp. (2)+ix+(1)+240.*

This catalogue is reprinted (with addenda) from the *Journal of the Bombay Natural History Society*. The scientific and trivial name of each bird is given, followed by the type, locality, and the distribution of the species.

1928. Mishi the Man-Eater, etc.

A popular account of a man-eating tiger.

BAKER, Frank Collins [1867–].

1895. Naturalist in Mexico, being a Visit to Cuba, etc. *8vo.* *Chicago.*

BAKER, John Randal.

1926. Sex in man and animals. With a preface by Julian S. Huxley. *8vo. pp. xvi+175. 22 figs. bibliogr. index.* *London.*

Written in the simplest language and presented in the most straightforward way, thus making the subject intelligent for the general public.

BAKER, *Sir* Samuel W.

1890. Wild Beasts and their Ways: Reminiscences of Europe, Asia, Africa and America. *2 vols. 8vo. illust.* Vol. I, *pp. 14+419.* Vol. II, *pp. 8+379.* *London.*

An interesting account of many wild animals by a naturalist-hunter who was at least ashamed of the needless slaughter and amazing cruelties of many 'sportsmen' whose main object seems to have been the murder of defenceless creatures to satisfy a savage lust for killing.

BAKER, T. Barwick Lloyd.

1835. An ornithological index, arranged according to the Synopsis Avium of N. A. Vigors. *8vo. pp. 8+187.* *London.*

This rather rare treatise is a fundamental work and ought to be of some value to the research student.

BALBIANI, Édouard Gérard [1823–99].

1879. Leçons sur la génération des vertébrés. *8vo. pp. 6+280. 6 pl. illust.* (Cours d'embryogénie comparée du Collège de France.) *Paris.*

BALDAMUS, August Karl Eduard [1812–93].

See naumann, johann andreas.

1851–8. *See* naumannia.

1876. Vogel-Märchen. *pp. 16+136. illust.* *Dresden.*

Fairy tales about birds.

1880. Illustriertes Handbuch der Federviehzucht. 2te Aufl. *8vo. vol. 1, pts. 1–5 in 1. 50 figs. in text.* *Dresden.*

The first volume, second edition, of a treatise on the culture of caged birds and farmyard fowls; the projected second volume not seen.

1882. Das Hausgeflügel; ein praktischer Rathgeber für Landwirthe und Geflügelhalter überhaupt. *8vo. pp. 7+183. 33 text-figs. T. of c.* *Dresden.*

A useful manual on farmyard fowls, with chapters on their culture and care in health and disease.

1892. Das Leben der europäischen Kuckucke, nebst Beiträgen zur Lebenskunde der übrigen parasitischen Kuckucke und Stärlinge. *8vo. pp. 8+224. 8 col. pl. T. of c.* *Berlin.*

An important contribution to the study of habits of the European Cuckoo and other parasitic birds. The copy in hand is from the Cabanis-Reichenow collection.

1908. Illustriertes Handbuch der Federviehzucht. 4te. Aufl bearbeitet von Alfred Beeck. *2 vols. 8vo. illust. portr. pl.* *Berlin.*

Contents. Vol. 1. Allgemeines Hühnervögel, Wirtschaftsgeflügelzucht. 2. Tauben und Wassergeflügel.

BALDWIN, John Henry.

1877. The Large and Small Game of Bengal and the North-Western Provinces of India. *8vo. pp. 24+380. 2 pl. illust. text.* *London.*

In the name of sport Capt. Baldwin has written a very good (scientific and popular) account of many of the Indian vertebrates, especially of the mammals.

BALDWIN, S. Prentiss.

1924. Typed letter to members of the Inland Bird Banding Association. *4to. pp. 3.* *Cleveland, O.*

BALFOUR, Francis Maitland [1851–82].

1885. A treatise on comparative embryology. *Second edition.* Reprinted without alteration from the first edition. *2 vols. 8vo.* Vol. 1, *pp. xi+(1)+591+(1)+xxiii. 275 figs. T. of c. index. bibliogr.* Vol. II, *pp. xi+(1)+792+xxiv. 429 figs. T. of c. index. bibliogr.* *London.*

A reprint of the first edition (1880–1). Birds are treated in chapters I–III, vol. 1, and in chapter VIII, vol. 2. Copious bibliographies accompany the text in all cases.

1885. The works of Francis Maitland Balfour . . . Ed. by M. Foster . . . and Adam Sedgwick. *4 vols. 8vo.* Vol. I, *pp. vii+922.* Vol. II, *pp. xi+(1)+591+xxiii. 275 figs.* Vol. III, *pp. xi+(1)+792+xxiv. 429 figs.* Vol. IV, *pp. lx. 53 pl.* *London.*

The Memorial Edition of the author's works, vol. I of which contains 'Separate Memoirs', vols. II–III. 'A treatise on Comparative Embryology', which had already appeared in 1880–1 in two volumes under the same title, and as a reprint, again, in 1885 (q.v.). Vol. IV contains both the plain and colored plates, 53 in all.

BALFOUR, Henry [1863–]. *Editor. See* ogilvie, f. m., 1920.

BALL, Alice Eliza [1867–].

1923. Bird biographies; illustrated by Robert Bruce Horsfall . . . *8vo. pp. xvi+(6)+295. 56 pl. (col.). T. of c. index.* *New York.*

An introduction for beginners to 150 common land birds of the eastern United States.

1924. Bird biographies. Second printing. *New York.*

BALL, John [1818–89].

1878. Journal of a tour in Marocco and the Great Atlas, &c. *See* hooker, *Sir* j. d.

1887. Notes of a naturalist in South America. *8vo. pp. xiii+(1)+416. 1 map (col. fold.). T. of c. 2 append. index.* *London.*

The results of a five months' tour round the South American continent. Many references to birds.

BALL, Valentine [1843–95].

1884. Report on the Museums of America and Canada. *8vo.* *Montreal.*

BALLET, JULES.

1890–1. La Guadeloupe, etc. *4 vols. 8vo.* *Basse-Terre.*

A contribution to the natural history of the French West Indies.

1894–1902. La Guadeloupe. Renseignements . . . faune, etc. *3 vols. in 5.* *Basse-Terre.*

A second edition.

BALSS, HEINRICH [1886–].

1928. Albertus Magnus als Zoologe. *8vo. pp. 8+146. illust. portr.* *München.*

Reprint from *Münchener Beiträge zur Geschichte und Literatur der Naturwissenschaften und Medizin*, Hft. 11–12. Bibliography, pp. 139–45.

BALSTON, RICHARD JAMES, **SHEPHERD,** CHARLES WILLIAM, and **BARTLETT,** EDWARD.

1907. Notes on the birds of Kent. *8vo. pp. xix+465. front. 8 pl. (col.). map (col.). T. of c. index.* *London.*

A popular account of 320 species.

BAMBERG. Naturforschende Gesellschaft.

1852–*date*. Bericht.

1924–*date*. Abhandlungen.

BANCROFT, EDWARD [1744–1820].

1769. An essay on the natural history of Guiana, in South America. Containing a description of many curious productions in the animal and vegetable systems of that country. In several letters from a gentleman of the medical faculty during his residence in that country. *8vo. pp. [8]+402+[2]. pl.* *London.*

One of the earliest and most informative accounts of the flora and fauna of the Guianas, especially of the British section.

BANFFSHIRE FIELD CLUB AND SCIENTIFIC SOCIETY. *Banff, Scotland.*

1881–1909? Transactions.

BANFIELD, EDMUND JAMES [1852–1923].

[**1918**]. Tropic days. *With 37 illust. 8vo. pp. (6)+7–313. front. 33 pl. T. of c.* *London.*

Sketches of a quiet scene, on an island off the coast of North Queensland; an attempt to describe the animals and types of a crude race in ordinary habit as they live.

1924. My Tropic Isle. *illus.* *N.Y.*

The author's tropic isle is off the coast of North Queensland, and the pages of the book are concerned with the customs and habits of the author on that lonely isle, and lengthy descriptions of the flora and fauna found there.

BANGS, OUTRAM [1862–].

1898–1916. 34 papers from Auk, Proc. Biol. Soc. Washtn., Proc. New. Engl. Zool. Club, etc. *pp. 283. col. pl.*

As the present bound collection of author's separates constitutes a valuable reference handbook for the student of American zoology it is included in this Catalogue.

1909. *See* GRENFELL, W. T.

1928. Birds collected by Dr. Joseph F. Rock in western Kansu and eastern Tibet, by Outram Bangs and J. L. Peters. *8vo. pp. [84]. pl.* (Harvard University—Museum of comparative zoology. Bulletin. Vol. 68, no. 7.) *Camb., Mass.*

1928. A collection of birds from Oaxaca, by Outram Bangs and J. L. Peters. *8vo. pp. 22.* *Cambridge, Mass.*

BANKS, *Sir* JOSEPH [1743–1820].

1772. Voyage to Iceland. *n.p. sq. 8vo. pp. 88+6.*

Unique autograph manuscript by this famous traveler. The journey was undertaken at the request of Lord Sandwich, First Lord of the Admiralty, after the author's return from his voyage round the world with Captain Cook. He was accompanied by Dr. Solander as his assistant in natural history, together with several draughtsmen and secretaries engaged at his own expense. In the Blacker Library.

1798–1800. Catalogus bibliothecæ historico-naturalis Josephi Banks . . . auctore J. Dryander. *5 vols. 8vo.* *London.*

CONTENTS. t. 1. Scriptores generales. 1798.—t. 2. Zoologi. 1796.—t. 3. Botanici. 1797.—t. 4. Mineralogi. 1799.—t. 5. Supplementum et index auctorum. 1800.

An indispensable work of reference to many rare and often unique MSS. and printed books on vertebrate zoology. The copy in the *Bibliotheca Osleriana* has the bookplate of Geo. Thursby, F.R.S. *See also* DRYANDER, JONAS, 1798–1800.

BANNERMAN, DAVID ARMITAGE.

1922. The Canary Islands, their history, natural history and scenery, an account of an ornithologist's camping trips in the archipelago. Illust. and maps. *8vo. pp. xv+(1)+365. front. (col.). 45 pl. (2 col., 6 fold.). 4 maps (fold.). T. of c. 2 append. index.* *London.*

An interesting account of these islands in which the birds figure largely, the three colored plates being devoted to this class, as well as Appendix B, pp. 328–50, which contains a list of the birds, with the status of each species.

1930. The Birds of Tropical West Africa, etc. Vols. I– . *pp. 75+376. index. col. front. 10 col. pl. 119 text figs.* *London.*

This treatise describes and pictures in admirable fashion the birds of a region that includes Gambia, Sierre Leone, the Gold Coast, and Nigeria. It is expected that there will be in all five or six volumes of the work.

BANNISTER, HENRY M.

[**1869**]. List of the birds of Alaska, with biographical notes. *See* DALL, W. H.

BANVARD, *Rev.* JOSEPH.

[**1846**]. Curious habits of birds. *16mo. pp. 96. front. 9 figs. T. of c.* *Philadelphia.*

Conversations between a father and his two sons and daughter, in which he imparts some information about birds, mingled with the usual religious reflections. A book for children.

BARBOUR, THOMAS.

1917. *See* STEJNEGER, LEONHARD H.

1926. Reptiles and Amphibians. *8vo. pp. 20+117. pls. 142 figs.* *Boston.*

BARBOZA DU BOCAGE, JOSÉ VICENTE (1823–95].

1867–73. Aves das possessoes portuguezas da Africa occidental que existem no Museu de Lisbõa. *8vo. illust. pl.* Author's separate from the *Jornal de sciencias mathematicas, physicas e naturales.* *Lisbõa.*

This systematic treatise on the birds of Portuguese West Africa is by a well-known naturalist. The work was issued in seven parts.

1869. Catalogo das Collecões ornithologicas, etc. (Museo Nacional de Lisbõa.) *8vo. pp. 62. Lisbõa.*

1881. Ornithologie d'Angola, etc. *8vo. pp. 32+576. 10 col. pl.* *Lisbonne.*

A very good account of the avifauna inhabiting the Portuguese possessions of Central and West Africa.

1901. Publiçacões scientificas, 1857–1901. *4to. pp. 39.* *Lisbõa.*
A bibliography of the author's writings.

BARCELÓ Y COMBIS, FRANCISCO.
1866. Catálogo metódico de las Aves observadas en las Islas Baleares. *8vo. pp. 40.* *Madrid.*
This is one of several tractates by this zoologist, covering nearly the whole of the natural history of the Balearic Islands and the neighboring coast of Spain.

1876. Catálogo de los Reptiles . . . en las Islas Baleares, etc. *8vo. pp. 18.* (Wanting.) *Palma.*

BARCELONA. Actas, Boletin u. Memorias d. (R.) Academia de ciencias y artes de. *See* (R.) ACADEMIA . . . BARCELONA.

BARCELONA. Museo de Ciències Naturales.
1917–*date*. Memorias.

BARING, *Sir* THOMAS.
1838. A bibliographical account and collation of 'La description de l'Égypte' presented to the London Institution. *folio. pp. 76.* *London.*
A photostat copy of an unpublished manuscript of great value in describing and appraising the natural history portion of a famous treatise.

BARING-GOULD, (*Rev.*) SABINE [1834–1924].
1863. Iceland: its scenes and sagas. With numerous illustrations and a map. *8vo. pp. xlviii +447. front. (col.). 15 pl. (3 col.). 1 map (fold.). 19 figs. (2 birds). T. of c. 5 append.* *London.*
References to birds are numerous, with two illustrations. Appendix A contains also a copy of the paper, *Notes on the Ornithology of Iceland*, by Alfred Newton, pp. 399–421.

BARKER, DAVID WILSON [1858–] and **CARPENTER,** A.
1926. Nature notes for ocean voyagers; 2nd ed. *See also* CARPENTER, A.

BARKER, T. W.
[**1905**]. Handbook to the natural history of Carmarthenshire. *12mo. pp. vi+(2)+110. T. of c. index.* *Carmarthen.*
In the present work an annotated list will be found on pp. 1–19 of nearly 200 species and subspecies.

BARKER, W. E.
n.d. Pigeon racing, a practical guide to the sport. *12mo. pp. 206. front. 2 pl. 16 figs. T. of c.* *London.*
A complete guide as to the breeding, feeding, training, showing, and general management of racing pigeons, both in health and sickness, with numerous diagrams for the building of a suitable loft.

BARKOW, HANS KARL LEOPOLD [1798–1873].
1856. Syndesmologie der Vogel. *folio. pp. 41. pl.* *Breslau.*
A study of the vertebral column in birds.

BARLOW, C.
1897. The story of the Farallones. *12mo. pp. 32. 26 photopl.* *Alameda, Calif.*
This small but interesting pamphlet gives a good idea of the bird life of the islands.

BARLOW, THOMAS WORTHINGTON [1823–56].
n.d. A chart of British ornithology, designed for popular use. *8vo. in portfolio.* *London.*
A folding table listing 337 species of birds with their generic characters.

BARNARD, A. K.
1927. Catalogue of the Fishes of South Africa. *2 vols.* (Wanting.)
A recent, trustworthy, systematic account.

BARNES, HENRY EDWIN.
1885. Handbook to the birds of the Bombay Presidency. *8vo. pp. xxiv+449+(3)+xi. T. of c. append. 2 indexes.* *Calcutta.*
Nearly 600 species are described, mainly from Jerdon's *Birds of India*, 1862–4 (q.v.), with synonymy, measurements, habits, and distribution, etc. An important contribution to Indian ornithology, the author's long residence in India, embracing a period of 20 years, having afforded him ample opportunities for the careful study of bird-life in all its various phases. The MS. corrections in ink in the present copy are in accordance with the *Fauna of India* vols. on Birds.

BARNESBY, GEORGE J. and **SHUCKARD,** W. E.
[**1860**?]. Chamber and cage birds: . . . translated from the last German ed. of Bechstein's Chamber birds, by W. E. Shuckard. A new ed. revised and partly rewritten, and the points of show birds described by G. J. Barnesby. *See also* BECHSTEIN, J. M.

[**1879**]. Cage birds . . . Translated from the last German ed. of Bechstein's Chamber birds, by W. E. Shuckard. Revised and partly rewritten and the points of show birds described by G. J. Barnesby. *See also* BECHSTEIN, J. M.

BARNUM, M. K.
1886. List of the Birds in Onandago Co., N.Y. *8vo.* *Syracuse.*

BARRANDE, JOACHIM [1799–1883].
1868. I. Réapparition du genre Arethusina.—II. Faune silurienne des environs de Hof, en Bavière. *8vo. pp. [8]+110. pl.* *Prague.*
The author was a well-known paleontologist, writer of many monographs on his favorite subject.

1872. Crustacés divers et poissons des dépôts siluriens de la Bohème . . . Extrait du Supplément au vol. 1. du Système silurien du centre de la Bohème, par Joachim Barrande. *Prague.*

BARRÈRE, PIERRE [1690–1755].
1741. Essai sur l'histoire naturelle de la France Équinoxiale.
Contains many references to the flora and fauna of French Guiana

1743. Nouvelle relation de la France équinoxiale, contenant la description des côtes de la Guiane; de l'isle de Cayenne, etc. *16½ cm. 2 p. l., iv, 250 pp., 1 l. 17 fold. pl. 2 fold. maps.* *Paris.*
A second edition of this description of tropical French South America.

1745. Ornithologiae Specimen Novum, etc. *8vo.* *Perpiniani, France.*

BARRETT, CHARLES.
1919. In Australian wilds; the gleanings of a naturalist. With illustrations from photographs by the Author. *8vo. pp. 230. front. 103 figs. T. of c. 2 indexes.* *Melbourne.*
Full of references to birds; no less than 60 out of the 103 illustrations depict them in their native wilds. The present copy is autographed by the author.

1923. Rambles round the zoo. *12mo. pp. 123. front. 38 pl. T. of c.* *Melbourne.*
Stories of the Melbourne Zoological Gardens. The portion on Birds is described in chapter X, pp. 104–23, with eight illustrations. The present copy is a gift from Lady Barrett.

BARRETT-HAMILTON, GERALD EDWIN HAMILTON [1871–].

1892. Harrow Birds. *8vo.* *Harrow.*

1901–13. *See* BELGIUM. 'La Belgica'.

1925. *See* HINTON, M. A. C.

BARRINGTON, GEORGE [1755–1804].

1802. The history of New South Wales including Botany Bay, Port Jackson, Parramatta, Sydney, and all its dependancies. *8vo. pp. (48)+505. front. (col.). vignette (col. bird). 21 pl. T. of c.*

An interesting account of the country with notes on the fauna and flora; birds on pp. 435–48, with five coloured illustrations, and vignette of the black swan.

1803. An account of a voyage to New South Wales. *8vo. pp. (10)+467+(5). front. (portr.). vignette (col.). 2 pl. (col.). 1 map (col. fold.). index.* *London.*

A companion volume to the author's *History of New South Wales*, 1802 (q.v.). References to birds will be found on pp. 158, and 295–300.

BARRINGTON, RICHARD MANLIFFE [1849–1915] and **others.**

1882–87. Report on the migration of birds in . . . 1881(–86). *See also* HARVIE-BROWN, J. A.

1900. The migration of birds, as observed at Irish lighthouses and lightships including the original reports from 1888–97, now published for the first time, and an analysis of these and of the previously published reports from 1881–87. Together with an appendix giving the measurements of about 1600 wings. *8vo. pp. xxv+(1)+667. front. (map fold.). 9 maps. T. of c. append. 11 indexes.* *London.*

A very exhaustive report, with tables of the arrival and departure of a number of species. Only 350 copies of the work were printed. Attached to the present copy (the author's) is an autograph letter and postcard to C. Stonham, dated Oct. 17, 1904.

BARROIS, CHARLES EUGÈNE [1851–1926].

1889. Faune du calcaire d'Erbray (Loire inférieure); contribution à l'étude du terrain dévonien de l'ouest de la France. *4to. pp. 348. pl.* *Lille.*

Author's reprint from *Mémoires de la Soc. géol. du nord*, t. 3.

[**1891**]. Faune du grès armoricain. *8vo. pp. [106]. pl.* *Lille.*

Extrait des *Annales de la Société géologique du Nord*, vol. 19, 1891.

BARROW, JOHN HENRY.

1832. Characteristic Sketches of Animals . . . by Landseer. *4to. illust.* *London.*

An appreciation of a celebrated artist's contribution to spirited paintings of animal life.

BARROW NATURALISTS' FIELD CLUB AND LITERARY AND SCIENTIFIC ASSOCIATION. *Barrow-in-Furness.*

1876–*date.* Annual Reports.

BARROWS, WALTER BRADFORD.

[**1885**]. Accipitres. *See* KINGSLEY, J. S. (The) Standard natural history, vol. IV.

1889. U.S. Department of Agriculture. Division of Economic Ornithology and Mammalogy. Bulletin 1. The English sparrow (passer domesticus) in North America, especially in its relations to agriculture. Prepared under the direction of Dr. C. Hart Merriam, Ornithologist. *8vo. pp. 405. map (col. fold.). 10 figs. T. of c. index.* *Washington.*

Presenting the evidence, pro and con, from which it is apparent everything is against the eligibility of the House Sparrow in America. The work is based primarily on the replies of over 3,000 observers to circulars of inquiry sent out by the Division of Economic Ornithology of the Department of Agriculture, as well as to the examination of over 500 sparrow stomachs of which only about one in six contained any insect remains, and of these remains two-thirds were of beneficial insects.

******** and **SCHWARZ,** E. A.

1895. The Common Crow of the United States. Bulletin No. 6, U.S. Department of Agriculture, Division of Ornithology and Mammalogy. General report: Walter B. Barrows. Report on insect food: E. A. Schwarz. *8vo. pp. 98. front. 2 figs. T. of c. append. index.* Author's separate. *Washington.*

The present report is based on an examination of the contents of 909 stomachs, from which it would appear that in most places the Crow is neither so harmful nor so valuable as to render special laws necessary for its destruction or protection, but from a purely economic standpoint the attempt to rid a State of Crows by bounties or any other means must prove either a complete failure or an expensive success.

1912. Michigan bird life, a list of all the bird species known to occur in the state together with an outline of their classification and an account of the life history of each species, with special reference to its relation to agriculture. *8vo. pp. xiv+822. front. 69 pl. 152 figs. T. of c. 2 append. bibliogr. glossary. index.* *Lansing, Mich.*

A complete account of 326 birds identified within the limits of the State, their habits, distribution, and migration.

BARRY, MARTIN [1802–55].

(**1837**). On the Unity of Structure in the Animal Kingdom, etc. *8vo.* [O.] *Edin.*

BARTH, JACOB BÖCHMANN.

1881. Norges Fuglevildt, etc. *8vo.* *Kjøbenhavn.*

BARTHÉLEMY-LAPOMMERAYE, C. J.

1859–62. Richesses ornithologiques du Midi de la France. *See* JAUBERT, J. B.

BARTHÉLEMY SAINT-HILAIRE, J. *See* ARISTOTLE, 1883 and 1887.

BARTHEZ, PAUL JOSEPH [1734–1806].

1798. Nouvelle mécanique des mouvements de l'homme et des animaux. *4to. pp. 16+246.* *Carcassonne.*

A rare, scientific contribution to a study of aerial flight. In the last three propositions of the first section (pp. 43–8) the bipedal posture of the bird at rest is considered. The sixth section (pp. 190–245) is a treatise on the flight of birds. This work is of historic importance following upon that of Borelli in the seventeenth century.

BARTHOLINUS, THOMAS [1616–80].

1668. Thomas Bartholinae Dissertatio de Cygni, etc. *1 vol. 16mo.*

An early study of the Swan.

BARTHOLOMAEUS ANGLICUS (*fl.* 1250).

1481. De Proprietatibus Rerum. Gothic letter, 456 ll., the first and last blank, first initial of each book supplied in red, green, and mauve, other initials and paragraph marks in red, rubricated throughout, stamped morocco, g.e. by Riviere. *fol.* Johann Koelhoff. *Cologne.*

This is the second Cologne edition. The first one was issued in 1472 and printed in that town by Caxton. Its author, professor of theology in the University of Paris, should not be confused with

Bartholomew de Glanville (like our author an English minorite monk) who lived about A.D. 1360. The copy in hand is a remarkably fine and clean example, wanting only two blank leaves.
A previous owner of this Blacker Library copy has written in the following comments: 'The book before us is no doubt one of the earliest specimens of Caxton's art, although it is issued to the public as a work of Koelhoff.'
Caxton, on the termination of his apprenticeship to a merchant or mercer in London, in 1442, went into the Low Countries, either on his own account or as the agent of some merchants, and resided abroad for 30 years. Whilst there he studied the art of printing on the premises of Koelhoff during which period he was assisted by Wynkyn de Worde, a native of Lorraine.
The first specimens of their craft were the present publication, *The Game and Play of Chesse*, etc., several of them not actually issued until some years afterwards and then without date or place.
Caxton returned to England in 1472, afterwards going back and forth to the Continent, the first book printed in Westminster bearing date 1477. It was during these migratory visits that he began and finally completed the *Bartholomaeus*, which he left with his friend and instructor Koelhoff, to be published by him under his own name whenever he chose. It was not until three years afterwards that Koelhoff presented to the world this magnificent edition of an extraordinary work.
The first English edition of the work was published about 1496 by Wynkyn de Worde, and is one of the most magnificent volumes that issued from his famous press.
It is from one of the leaves of his translation that we quote the authority attributing the printing of this Latin version to Caxton. In the 'Prohemium Bartholomei de Proprietatibus rerum'—a series of introductory verses—he thus writes: 'and of your charity call to remembrance the soul of William Caxton, first printer of this book in Latin tongue at Cologne, himself to advance that every well disposed man may therein look.'

1492. De Proprietatibus Rerum. Gothic characters. *folio. 62 ff.+2+ff. 200. illust.* Initials in red, blue, green, and gold. 19 books. Hain 2510. *Br. Mus. Cat.* ii. 435. A rare and beautiful copy. *Lyons.*

Mullens and Swann believe that the original date of composition of this famous work is uncertain. It was probably compiled between the years 1248 and 1267. Bartholomaeus is worthy of mention as being the author of one of the earliest printed works on natural history in the English language, and of one of the most widely read books of medieval times. His work was translated into French (in 1372), and a little later into Spanish, Dutch, and English. Its popularity, continue, Mullens and Swann, remained in full vigor after the invention of printing, no less than ten editions being published in the fifteenth century of the Latin copy alone, with four French translations, a Dutch, a Spanish, and an English one. *See also* the fuller description of this volume in Chapter XIX of this Introduction.
The first English translation was made by John of Trevisa for Sir Thomas Berkeley in 1397, and it was printed in London in (or about) 1495 by Wynkyn de Worde.
In the edition of 1495 the English names of birds appear in the first paragraph of a chapter instead of at the head with the one Latin name.
Of the nineteen books into which the work is divided, Book XII is devoted first to 'De Avibus in generali', followed by accounts of 'Aquila, or Egle'; 'Ancipitre, or Gosehauke'; 'Alieto' [= Sparrowhawk?]; 'Apibus, or Bees'; 'Bubo, or Owle'; 'Columba, or Culuour' [= Dove]; 'Coturnia, or Curlewe'; 'Ciconia, or Storke'; 'Cornix, or Crowe'; 'Corvo, or Rauen'; 'Cigno, or Swanne'; 'Culix, or Gnatte' [the fly]; 'Cicada, or Grasshopper'; 'Fenix' [= Phoenix]; 'Grus, or Crane'; 'Gallus, or Cocke'; 'Gallinaceo, or Capon'; 'Gallina, or Henne'; 'Grype' = [Griffon]; 'Herodius, or Faucon'; 'Hirundo, or Swalowe'; 'Kaladrius' (?); 'Larus' [a gull]; 'Locusta' [locust]; 'Mergulus, or Cote'; 'Milvus, or Kyte'; 'Nicticorax, or Nyghte Crowe'; 'Onocrocalus, or Myre-drumble'; 'Pellicane'; 'Perdix, or Pertriche'; 'Pavo, or Pecoke'; 'Passeres, or Sparrowes'; 'Strucio, or Ostriche'; 'Turture'; 'Vulture'; 'Ulula' [= Bittern]; 'Upupa, or Lapwynge'; 'Vespertilio, or Remouse' [the bat].
See also the English translation, 1582, in this Catalogue.

1492. De proprietatibus rerum. A. Koberger. *Nürnberg.*

This extremely rare copy is from the library of Dean Frank Adams.

18th Sept. 1494. De las Propriedades de las Cosas. El libro de proprietatibus Rerum en Romance. *folio.* Gothic letter, double columns of 46–7 lines. With the woodcut Arms of Spain, sixteen large woodcuts and a large woodcut printer's device on a black ground. Woodcut initial letters. Head-lines. Rarissima. Henri Mayer, 18th September. *Toulouse.* Hain 2523 (without seeing it). Proctor 8722. Pellechet 1887. 46 leaves (gg 1–mm 8), including the entire Book XVII, 87 pp., 'De Los Animales', from the above edition, the first in Spanish, of Bartholomew the Englishman's Encyclopedia, compiled in the early thirteenth century. The book describes 110 animals, and is preceded by several pages relating to animals in general.

Of this extremely rare incunable McGill has only a portion, presented to the Library of the Medical Faculty by Maggs Bros., London. This excerpt comprises 13 ff. which include the complete Book III, *Del Anima*, treating the several Senses. Beginning on the verso of (script) folio 24 is a discussion of *Vision—Del sentido dela vista*, illustrated by two woodcuts in the text.
A facsimile of the general title to the volume is prefixed, and on the verso of the leaf is drawn a fifteenth-century woodcut of the crucifixion, which does not appear in the original volume.
The Compiler had the whole bound in imitation of contemporary binding by Zaehnsdorf, and gave the volume, thus embellished, to the Medical Library.

1535. De Proprietatibus Rerum. (In English.) Black-letter, double columns of 50 lines. Thomas Berthelet. Second edition in English. *sm. folio.* Folio 226 misplaced. Very rare. Lowndes regards (vol. ii, 898) this edition as the *chef-d'œuvre* of Berthelet's press. *London.*

The translation is that of John of Trevisa, made at the request of Thomas Lord Berkeley in 1398. It was first printed in England by Wynkyn de Worde in 1495. Berthelet's is the second edition in English. The earliest edition in Latin was either the one printed at Basle about 1470–1, or that printed at Cologne about the same time. This famous work is a compilation in nineteen books from various departments of human knowledge, *and was the encyclopedia of the Middle Ages.* Berthelet's device is only found in a few copies (missing in this instance), the others having the last page blank, and very often the last leaf containing it is wanting altogether.

1582. [Batman uppon Bartholome, his Booke De Proprietatibus rerum; trans. from the Latin by John de Trevisa.] *folio.* T. East. fol. 86–425. The work begins with Bk. 7 *De infirmitatibus*, and ends with Bk. 19 *De Instru. musicis.* *London.*

The copy in hand is the zoological portion, translated by Stephen Batman. It is an extremely rare edition; the Blacker Library item has been carefully compared with the British Museum copy, and found to agree with it.

**** ed. **STEELE,** ROBERT.

1893. Medieval lore; an epitome of the science, geography, animal and plant folk-lore and myth of the middle age; being classified gleanings from the encyclopedia of Bartholomew Anglicus, *On the properties of things*; ed. by Robert Steele with a preface by William Morris. *8vo. pp. viii+(2)+154. 2 figs. T. of c. bibliogr. glossary. index.* *London.*

This book consists of nine chapters on Medieval Science, Manners, Medicine, Geography, Natural History—Trees—Birds—Fishes and Animals. Birds are treated in chapter VIII, pp. 99–113, the species mentioned being the eagle, goshawk, pigeon, crow, raven, swan, phoenix, crane, griffin, pelican, peacock, and vulture.

BARTHOLOMEW, J. G. [1860–] and **others.**

1911. Atlas of zoögeography. A series of maps illustrating the distribution of over 700 families, genera and species of existing animals, prepared by J. G. Bartholomew, W. Eagle Clarke, and Percy H. Grimshaw. Under the patronage of the Royal geographical society. *46 cm.* Forms vol. 5 of Bartholomew's physical atlas. *Edin.*

Includes all families of mammals, birds, reptiles, and amphibians together with several of the more important genera and species, most of the families of fishes, and a selection of families and genera of molluscs and insects. Text furnishes concise information about the groups whose distribution is shown on the plates. About 200 maps altogether, as most of the 36 plates contain six maps each. Contains also a bibliography of about 1,000 titles arranged by regions subdivided by animals.

BARTHOLOMEW DE GLANVILLE (GLANVILLA). *See* BARTHOLOMAEUS ANGLICUS.

BARTLETT, Abraham Dee.

1898. Wild Animals in Captivity. *8vo.* (Wanting.) *London.*

****, **BARTLETT,** Edward, *ed.*

1900. Bartlett's life among wild beasts in the 'zoo'; being a continuation of *Wild animals in captivity*; the habits, food, management and treatment of the beasts and birds at the 'Zoo'; with reminiscences and anecdotes by A. D. Bartlett; compiled and edited by Edward Bartlett. *illust. 8vo. pp. xv+(3)+375. front.(portr.). 9 pl. 23 figs. T. of c. 4 append. index.* *London.*

A second series of Abraham Bartlett's Zoological notes, and anecdotes of birds and animals, etc., in the London Zoological Gardens, Regent's Park, edited by his son. The portion relating to the birds will be found in part II. pp. 109–243, with ten illustrations. The appendices contain Biographical notes, anecdotes, etc.

BARTLETT, Edward.

1873. On the birds of Eastern Peru. *See* SCLATER, PHILIP LUTLEY.

1888–9. A monograph of the weaver-birds, Ploceidae, and arboreal and terrestrial finches, Fringillidae. *4to. pp. 203. 31 pl.* *Maidstone.*

An unfinished manual of the weaver-birds, consisting of five parts only of the originally proposed 90 or 95 parts.

1892. The Mammalia of Borneo. *4to.* *Sarawak.*

1894. The Crocodiles and Lizards of Borneo, etc. *8vo.* *Sarawak.*

1900. Bartlett's life among wild beasts in the 'zoo'. *See* BARTLETT, A. D. and BARTLETT, EDWARD.

1907. Notes on the Birds of Kent. *See* BALSTON, R. J.

BARTON, B. S.

1883. Barton's Fragments of the Natural History of Pennsylvania. Edited by O. Salvin. *4to. pp. [1], xviii, 24.* *London.*

This is a reprint of the more complete version of the original, published in 1799. *See also* WILLUGHBY SOCIETY.

BARTON, Frank Townend.

1912. Pheasants in covert and aviary. With four coloured plates from life by H. Grönvold, and thirty-seven other illustrations. *4to. pp. 288. front. (col.). 3 pl. (col.). 24 pl. 9 figs. T. of c. index.* *London.*

A practical, non-technical work on the breeding and rearing of pheasants.

BARTRAM, William [1739–1823].

1793. William Bartram's Reisen durch Nord- und Süd-Karolina, Georgien, Ost- und West-Florida . . . von den Naturprodukten dieser wenig bekannten grossen Länder. Aus dem Englischen. Mit . . . Anmerkungen von E. A. W. Zimmermann. Mit Kupfern. *8vo. pp. 26+5. index. supplement.* *Berlin.*

German translation of the 1791 edition—a very important Americana containing early descriptions of the fauna and flora of the Southern States visited by this naturalist-observer. A scientific, descriptive list of the avifauna is given on pp. 279–94; the other fauna and the flora elsewhere. There are eight well executed copper-plate illustrations.

1794. Travels through North and South Carolina, Georgia, East and West Florida, etc. 2nd ed. *8vo. pp. 24+527. 8 col. pl. index. T. of c. extra-illustrated, 2 pl.* *Phila. and London.*

This edition is apparently much rarer than the *editio princeps*. The title-page imprint calls it the 'second edition in London'. The present copy has several extra copper plates (pasted in) to illustrate the text.

BASCHIERI, Antonio.

See GAZZADI, DOMENICO. 1843–6.

BASCOM, Caroline Crowninshield.

[*c.* **1905**]. The bird hospital. Illustrated from photographs. *8vo. pp. 173. front. (col.). 6 pl. T. of c.* *New York.*

Simple tales, written especially to teach children to love and be kind to all living creatures.

BASEL. NATURFORSCHE GESELLSCHAFT.

1834–*date.* Bericht und Verhandlung.

BASKETT, Jas. Newton.

n.d. Story of the Birds. *12mo.* *New York.*

BASSETIERE, Gerard de la.

1913. Essai sur le Chant de Quelques Oiseaux. *Huisseau-sur-Cosson (Loire-et-Cher).*

BASS ROCK. Its Civil and Ecclesiastical History.

1847. (Several contributors.) *8vo.* (Wanting.) *Edinburgh.*

BASSLER, Ray Smith [1878–].

1915. Bibliographic index of American Ordovician and Silurian fossils. *2 vols. 4to. tab.* *Washington.*

BASTIAN, Henry Charlton [1837–1915].

1871. The modes of Origin of lowest Organisms, etc. [O.] *London.*

BATALEUR. *See* BATELEUR.

BATAVIA.

1867–*date.* Notulen van de algemeene . . . Bataviaasch Gen. van . . . Wetenschappen. Deel 1–*date.* Register 1867–98.

BATAVIAASCH GENOOTSCHAP VAN KUNSTEN EN WETENSCHAPPEN.

Batavia.

1862–1921. Notulen; from **1922** in Tijdschrift.

1919–*date.* Populair wetenschappelijke serie.

1852–*date.* Tijdschrift.

BATELEUR, THE.

1928–*date.* A quarterly Journal of African Ornithology. Edited by . . . H. F. Stoneham and A. H. Paget Wilkes. *8vo.* *Nairobi.*

This admirably conducted periodical appeared at first with the incorrectly spelled title 'Bataleur', but this was soon corrected to the proper heading—as above.

BATEMAN, G. C.

1897. The Vivarium, etc. *8vo.* (Wanting.) *London.*

BATES, Frank Amasa.

1896. The game birds of North America; a descriptive check-list. *8vo. pp. 118. front. 21 figs. index.* *Boston.*

A popular account of 124 species of birds habitually pursued for food and sport, with short accounts of their habitat, size, and plumage for easy identification in the field.

BATES, George Latimer.

1930. Handbook of the Birds of West Africa. *8vo. pp. 23+572. 1 pl. 1 map. text-figs. index.* *London.*

An excellent up-to-date monograph, poorly illustrated it is true, but a well-written, systematic treatise of decided value to the advanced student.

BATES, HENRY WALTER [1825–92].

1863. The naturalist on the River Amazons . . . during eleven years of travels. *2 vols. 8vo.* Vol. I, *pp. viii+(2)+351. front. 4 pl. 14 figs (1 vignette). 1 map (fold.). T. of c.* Vol. II, *pp. vi+423. front. 3 pl. 21 figs. (1 vignette). T. of c. index. London.*

The first edition of a famous work—the results of travels during the years 1848–59, when 14,712 natural history specimens were collected, 8,000 being new to science. 360 species of birds were collected—being named by Dr. Sclater.

1873–4. The German Arctic expedition of 1869–70. *See* KOLDEWEY, *Capt.* KARL.

1892. The naturalist on the River Amazons, a record of adventures, habits of animals, sketches of Brazilian and Indian life. With a memoir of the author by Edward Clodd. *8vo. pp. lxxxix+(3)+395. front. (portr.). 1 pl. (col. fold.). 42 figs. 1 map (fold.). T. of c. index. London.*

A revised edition of the *editio princeps* of 1863.

BATH NATURAL HISTORY AND ANTIQUARIAN FIELD CLUB. *Bath.*

1867–1909. Proceedings.

BATMAN, STEPHEN.

1582. [Batman uppon Bartholome, his booke De proprietatibus rerum; tr. from the Latin by John de Trevisa.] *See* BARTHOLOMAEUS ANGLICUS.

BATTEN, HARRY MORTIMER [1888–].

1923. Inland birds. Northern observations by a sportsman. *8vo. pp. 288. front. 33 pl. T. of c. London.*

Notes and observations on the inland birds of northern Scotland.

1925. Nature from the highways. *illust. 8vo. pp. 312. front. 15 pl. (21 figs.). T. of c. London.*

Each chapter deals with some form of outdoor life, mostly in the British Isles, although Canada is mentioned as well.

[**1928**]. Habits and Characters of British Wild Animals. *8vo. pp. 346. 16 pl. New edition.*

A popular and accurate account of the life-history of 16 British mammals.

1929. Habits and characters of British Wild Animals. Illustrated by W. Reynolds. *Cheap edition. 8vo. London.*

BATTYE, HARRY WATSON [1852–1927].

1919. Yorkshire canaries. How to breed, manage, and exhibit. Illustrated by H. Norman. *8vo. pp. 80. front. 3 pl. 5 figs. T. of c. London.*

BAUM, HERMANN.

1903. Kunene-Sambesi-Expedition H. Baum. *8vo. pp. 11+593. 14 pl. text-figs.* (Wanting.)

Although otherwise scientifically important the above report gives us very little African zoology. A. Sokolowsky describes the antelopes of the regions visited.

1926. *See* ELLENBERGER, WILHELM.

BAUR, GEORG.

1882–7. [Memoirs on vertebrata.] *8vo. illust. pl.* In German.

BAUTZEN. Naturwissensch. Gesellschaft Isis zu Bautzen.

1896–*date*. Bericht (u. Sitzungsberichte u. Abhandlungen).

BAXTER, EVELYN V. and **RINTOUL**, LEONORA J.

1928. The geographical distribution and status of birds in Scotland. *8vo. pp. viii+425. front. (map). bibliogr. 5 append. index. Edinburgh.*

BAXTER, LEON H.

1920. Boy bird house architecture. *8vo. pp. 61. front. 21 pl. (diagrs.). 16 figs. T. of c. Milwaukee, Wis.*

BAY, EDVARD.

1894. Hvirveldyr [of the east coast of Greenland]. *8vo. pp. 58.* Repr. from *Meddelelser om Grønland*, 19. *Kjøbenhavn.*

1895. Jagtskitser fra den Danske expedition til Østgrønland (1891–2). *8vo. pp. 23.* Repr. from *Dansk jagttidende. Kjøbenhavn.*

BAYLOR UNIVERSITY MUSEUM. *Waco, Texas.*

? 1926. Contributions.

1927. Special Bulletin. No. 1.

BAYNE, CHARLES S. [1876–].

n.d. Exploring England; an introduction to nature-craft. *8vo. pp. 216. front. 15 pl. T. of c. index. London.*

BAYNES, ERNEST HAROLD [1868–1925].

1915. Wild bird guests; how to entertain them; with chapters on the destruction of birds, their economic and æsthetic values, suggestions for dealing with their enemies, and on the organization and management of bird clubs. *8vo. pp. xviii+(2)+326. front. 33 pl. 20 figs. T. of c. append. index. New York.*

A work designed mainly with the idea of pointing out that bird clubs may be made a most powerful factor in the work of bird conservation.

1927. Animal heroes of the Great War; with an account of the writer, 'The man and his enemies', by Owen Wister. *8vo. pp. 54+307. illust. portr. New York.*

BAYREUTH. Naturwissensch. Gesellschaft.

1911–14. Bericht 1–2 (all pub.). *8vo. pl.*

BAY STATE OOLOGIST, THE.

1888. To the Study of Birds, Nests, and Eggs. W. H. Foote, editor and publisher. Pittsfield, Mass. *12mo.* Monthly. Suspended. Succeeded by the *Ornithological and Oological Semi-Annual*. Frank L. Burns furnishes the following data: Vol. I, 1888. Nos. 1–6, Jan.–June. *pp. iv+52.*

Though containing in the main boyish accounts of collecting trips, there are interesting contributions from J. Warren Jacobs, E. F. Koch, Wm. L. Kells, Le Grande, T. Meyer, B. T. Taylor, and others.

BAZIN, P. F. A. *See* AUDUBON AND BAZIN, 1857.

BĀZ-NĀMA.

[*ca.* **1780**]. A Persian manuscript on the diseases of the Falcon. Anon. Red-lined frame. *12mo.*

Probably a unique transcript from an original by an unknown scribe. Collected by W. Ivanow in Hyderabad—Deccan in Jan. 1930. [W. I.]

'BEAGLE', Voyage of the. 1838–44. *See* DARWIN, CHARLES.

['**BEAGLE', Voyage of the** (*contd.*)]

1839–43. The Zoology of the voyage of H.M.S. 'Beagle' under the command of Capt. Fitzroy, 1832–36. Edited by C. Darwin. *5 pts. or vols. roy. 4to. with 84 plain and 82 col. pl.*

CONTENTS. Fossil Mammalia, by R. Owen. With 32 pl. Mammalia, by G. R. Waterhouse. With 32 col. and 3 plain pl. Birds, by J. Gould and G. R. Gray. With 50 col. pl. Fishes, by L. Jenyns. With 29 pl. Reptiles, by T. Bell. With 20 pl.

This famous expedition marked the high-water mark of scientific exploration, and the reports of the zoology form essential titles for every well-ordered library on natural history.

'BEAGLE' and **'ADVENTURE'.**

1839. Narrative of the surveying voyages, 1832–6. *4 vols.*

BEAL, FOSTER ELLENBOROUGH LASCELLES (1840–1916].

1895. Bulletin No. 7, U.S. Department of Agriculture. Division of Ornithology and Mammalogy. Preliminary report on the food of woodpeckers. *8vo. pp. 33. front. 4 figs. T. of c. Washington.*

A preliminary report, based on the examination of 679 stomachs of Woodpeckers, representing seven species.

1897. U.S. Department of Agriculture. Farmer's Bulletin No. 54. Some common birds in their relation to agriculture. *8vo. pp. 40. 22 figs. T. of c. Washington.*

Brief abstracts of the results of food studies of about 30 grain and insect-eating birds belonging to ten different families.

**** and **JUDD,** SYLVESTER D.

1898. U.S. Department of Agriculture division of biological survey. Cuckoos and shrikes in their relation to agriculture. The food of cuckoos. The food of shrikes. By Sylvester D. Judd. Prepared under the direction of Dr. C. Hart Merriam chief of biological survey. *8vo. pp. 26. front. 1 fig. T. of c. Washington.*

From this investigation we learn that cuckoos rank among our most useful birds, whilst the loggerhead shrike's beneficial qualities outweight four to one its injurious ones. These facts are based on the examination of the contents of 310 stomachs, of which one-half were cuckoos, and the other half shrikes.

1900. Food of the bobolink, blackbirds, and grackles. *4to. pp. 77. illust. map.* (U.S. Agri., Dept. of.—Biological survey, Division of. Bull. no. 13.) *Washington.*

1900. How Birds affect the Orchard.

1907–10. U.S. Department of Agriculture Biological Survey—Bulletin No. 30, C. Hart Merriam, Chief. Birds of California in relation to the fruit industry. *2 vols. in 1. 8vo.* Vol. I, *pp. 100. front. (col.). 4 pl. T. of c.* Vol. II, *pp. 96. front. (col.). 5 pl. (col.). T. of c. Washington.*

A careful study of the food habits of birds that frequent orchards shows that most of the species are beneficial, and that without their aid the difficulty and expense of raising fruit would be enormously increased. A few species under certain circumstances are harmful and need to be held in check.

1911. U.S. Department of Agriculture Biological Survey—Bulletin No. 37 . . . Food of the woodpeckers of the United States. *8vo. pp. 64. front. (col.). 5 pl. (col.). 3 figs. T. of c. Washington.*

The present paper is based upon the examination of 3,453 stomachs of woodpeckers representing 16 species and nearly twice as many subspecies, taken in all parts of the United States, and Canada. Tables are given showing the percentages of animal and vegetable food contained in the stomachs.

1915. United States Department of Agriculture, Bulletin no. 280. Contribution from the Bureau of Biological Survey. Professional paper. Food habits of the thrushes of the United States. *8vo. pp. 23. 2 figs. T. of c.* Author's separate. *Washington.*

BEALE, THOMAS.

1839. The natural history of the sperm whale . . . To which is added a sketch of a South-Sea whaling voyage . . . [2nd ed.] *19½ cm. pp. vi, [7]–12, 393. front. illust. 2 pl. London.*

BEAN, TARLETON HOFFMAN. *See* UNITED STATES. VOYAGE TO ALASKA, 1883.

1893. The Fishes of Pennsylvania, etc. *8vo. pp. vii, 149. 35 pl. (15 col.). Harrisburg.*

1895. *See* GOODE, GEORGE BROWN.

BEAUFORT, L. F. DE. *See* WEBER, M., 1911–28.

BEAUGRAND, CHARLES.

1888. The walks abroad of two young naturalists; [tr.] from the French. David Sharp. Numerous illustrations. *8vo. pp. xvi+304. 139 figs. T. of c. London.*

BEAUREGARD, HENRI.

1876. Recherches sur les réseaux vasculaires de la chambre postérieure de l'œil des vertébrés. *8vo. pp. 3+159. pl. Paris.*

Graduate thesis of Paris on the vascular supply to the posterior chamber of the eye in vertebrates.

BEAVAN, ARTHUR HENRY.

1905. Birds I have known. *12mo. pp. (6)+7–256. front. 38 figs. T. of c. index. London.*

BECALETTE, A.

1903. Traité de Fauconnerie, etc. *4to. Evreux.*

An interesting account of falconry, ancient, medieval, and modern.

BECHSTEIN, JOHANN MATTHAEUS [1757–1822].

1793–1809. Getreue Abbildungen naturhistorischer Gegenstaende des . . . In- und Auslandes. Neue Ausgabe. *80 Hefte.*

One of the most noteworthy atlases (with descriptive text) of this famous naturalist. The present copy has 80 parts and is very rare.

1795–7. Naturgeschichte der Stubenvögel, etc. Naturgesch. oder Anleitung z. Kenntniss der Säugethiere, Amphibien, Fische, Insekten und Würmern, welche man in der Stube halten kann. *2 vols. 8vo. pp. 10+488+10; 12+312+8. 2 col. t.-p. 4 col. pl. Gotha.*

The first edition of a very popular work. The second volume is wanting.

1795–1805. Gemeinnützige Naturgeschichte Deutschlands nach allen drey Reichen. [Vögel.] *3 vols. 8vo.* II–IV. Special title for the first volume: *Gemeinnützige Naturgeschichte der Vögel Deutschlands für allerley Leser, vorzüglich für Forstmänner,* etc. Vol. I (1805) [II]. *pp. xxxiv+1346 +2. 30 pl. front.* Vol. II [III] 1795. *pp. xx+800. 12 pl. numb. I–XVII. front.* Vol. III [IV] 1795. *pp. xviii+946. 19 pl. (numb. I–XXX.) index to 3 vols. Leipzig.*

The above set of this famous author's early works on birds (in the original covers) is from Prof. Anton Reichenow's library, and bears his autograph. It appears to be composed of two volumes of the first edition and one of the second. The four supplements are appended to vol. III. In this well-known treatise a full account of German birds is given and their characters discussed. Several new genera and species are described.

1797. Franz Le Vaillants Naturgeschichte der Afrikanischen Vögel. Erster Band (all pub.). *sm. 4to. pp. x+3+210. index. 48 (I–XLVIII) hand-col. copper pl. 8 parts* (all issued). *Nürnberg.*

This treatise is apparently a translation with emendations ('Aus dem Französischen übersetzt und mit Anmerkungen versehen') of Levaillant's *Histoire naturelle des Oiseaux d'Afrique*, 1796, and was probably intended to follow in regular order the proposed 51 *livraisons* of that very doubtful publication, but, so far as the annotator knows, it came to an end with the eighth part.

1797. Naturgeschichte; oder, Anleitlung zur Kenntniss und Wartung der Säugethiere, Amphibien, Fische, Insecten und Würmer, welche man in der Stube halten kann. *pp. [14]+312.* Extra engraved t.-p.: Naturgeschichte der Stubenthiere. *Gotha.*

A separate volume of the author's *Naturgesch. d. Stubenthiere.*

1803–12. Ornithologisches Taschenbuch von und für Deutschland; oder, Kurze Beschreibung aller Vögel Deutschlands für Leibhaber dieses Theils der Naturgeschichte. 3 Thl. *[2 vols.] 16mo.* Vol. I, pts. 1–2. *pp. xxxiv+550. 39 pl. (col.). index.* Vol. II, pt. 3. *pp. (4)+551–612. 7 pl. (fold.) Leipzig.*

Field-book on birds of Germany. Part 1 (pp. 1–250) on land-birds, with 19 copper plates. Part 2 (253–462) on water-birds, with 20 copper plates, all colored; bird-calendar (465–84); index (485–546); and corrections (547–50). An appendix occupies pp. 455–62 in the second part. Part 3, a separate small volume, with 7 folding plates illustrating heads and feet, contains a second appendix (pp. 551–90), and a chapter of generic diagnoses (591–612) including explanation of the plates.

1811. Kurze Uebersicht aller bekannten Voegel, etc. *Nürnberg.*

1812. Naturgeschichte der Stubenvögel. 3te vermehrte und verbesserte Aufl. *12mo. pp. xxvi+764. 16 col. pl. folding table. T. of c. index. Gotha.*

The third, revised edition, with all the plates colored, of this famous treatise on cage birds.

1812–15. Nachtraege von J. P. A. Leisler. 2 Hefte. *8vo. See also* LEISLER, J. P. A. *Hanau.*

1840. Naturgeschichte der Stubenvögel. 4te vermehrte und verbesserte Aufl. *8vo. pp. 22+[2]+480. pl. Halle.*

1853. Cage and chamber-birds; their natural history, habits, food, diseases, management, and modes of capture. Tr. from the German of J. M. Bechstein, M.D. With considerable additions on structure, migration, and economy, comp. from various sources by H. G. Adams. Incorporating the whole of Sweet's British warblers . . . *sm. 8vo. pp. 16+500. 38 pl. index. London.*

This is the best of the several English translations of Bechstein's *Stubenvögel*, the first edition of which appeared in 1795. The present copy has uncolored plates.
The value of this edition is enhanced by the inclusion of Sweet's *British Warblers*, 1823–9.

[? 1860]. Chamber and cage birds; tr. from the Germ. by W. E. Shuckard. New Ed. by G. J. Barnesby. *8vo. pp. 8+492. col. front. index. several cuts in text. London.*

This is an improvement on several other English translations of Bechstein's famous *Naturgeschichte der Stubenvögel.*

1870. Naturgeschichte der Hof- und Stubenvoegel, etc. 5te Auflage. *8vo. pp. xiv, 358. 8 pl. text illust. Leipzig.*

[? 1879]. Cage birds, their management, habits, diseases [etc.]; tr. from the last Germ., ed. by W. E. Shuckard, rev. and partly rewritten by G. J. Barnesby. *8vo. pp. [2]+232. front. London.*

Except that it has been reset and provided with a new frontispiece (minus the other illustrations) this volume is identical with the (? 1860) edition.

[1881]. The natural history of cage birds; their management, habits, food, diseases, treatment, breeding, and the methods of catching them. [Tr. from the Germ.] New ed. *12mo. pp. 6+311. col. front. 6 col. pl. numerous text cuts. index. London.*

This edition reflects little credit on those who have been concerned in its production, and the Compiler would advise all students to consult this treatise in the original.

BECKHAM, CHARLES WICKLIFFE [1856–88].

1885. List of the Birds of Nelson Co., Ky. Author's reprint (Kentucky Geological Survey). *8vo. Frankfort.*

1887. Observations on the Birds of S.W. Texas. *pp. 64.*

BECKWITH, WILLIAM EDMUND [1844–92].

[1879]. Birds of Shropshire. Reprinted. *8vo. pp. (2)+31+(1)+3+(1)+97–112+129–46. Shrewsbury.*

An annotated list of 224 species.

BEDDARD, FRANK EVERS [1858–].

1885. Collected scientific papers. *See* FORBES, WILLIAM ALEXANDER.

1895. British birds. *See* HUDSON, W. H.

1895. A Text-Book of Zoogeography. *8vo. pp. 8+246. 4 col. maps. Cambridge.*

An excellent treatise, written for the Cambridge Natural Science Manuals.

1898. Elementary practical zoology. *12mo. pp. vi+(2)+210. 93 figs. T. of c. London.*

A guide to elementary zoology.

1898. The structure and classification of birds. *8vo. pp. xx+548. figs. 252. T. of c. index. London.*

A full and thorough treatise on the subject of avian anatomy, with numerous illustrations.

1900. A book of whales. . . . With forty illustrations by W. Sidney Berridge. *8vo. pp. xv, 320. 21 pl. London.*

One of the popular Progressive Science Series, written in this scientific writer's best style.

1902. Mammalia. Cambridge Natural History. *See also* HARMER, S. F., 1895–1909.

An important, scientific and popular contribution to a valuable series of monographs.

BÉDÉ, P., **LAVAUDEN,** L., and **BLANCHET,** A.

1924. Contributions à l'ornithologie Tunisienne pour servir de complément et de supplément aux *Birds of Tunisia. See also* LAVAUDEN, L. and BLANCHET, A.

BEEBE, CHARLES WILLIAM [1877–].

1905. Two bird-lovers in Mexico. Illustr. with photos by the Author. *8vo. pp. xiii+(1)+407+(1). front. 13 pl. 92 figs. T. of c. append. index. Boston.*

Field studies of Mexican bird-life, with a chapter devoted to equipment, etc., used on the journey. The Appendix gives a list of the birds and mammals observed.

[**BEEBE,** C. W. (*contd.*)]

1906. The bird, its form and function. *8vo. pp. 12+496. illust. pl.* (American Nature Ser.) *New York.*

A popular study of the morphology and other characters of the bird as an animal, with remarks on its physiology.

[**1906**]. The log of the sun; a chronicle of nature's year. *8vo. pp. x+(2)+321. front.* (*col.*). *T. of c. Garden City, N.Y.*

Fifty-two short essays presenting familiar bird and animal objects from unusual points of view. Portions of the text had already appeared in various American magazines.

1907. The Bird: its Form and Function. *8vo. pp. 11+496. 1 col. pl. figs. in text. London.*

The English edition of a popular work.

**** and **BEEBE**, MARY BLAIR (*née* RICE).

1910. Our search for a wilderness, an account of two ornithological expeditions to Venezuela and to British Guiana. Illustrated with photographs from life taken by the authors. *8vo. pp. xix+(1)+408. front. 160 figs.* (*2 maps*). *T. of c. 3 append. index. New York.*

A running account of two private expeditions to northern South America in search of natural history specimens. On the second expedition nearly 300 living birds representing 51 species were brought back and placed in the New York Zoological Park, no less than 33 species being new to the collection. Appendices A and B contain a classified list of the birds observed, with native Indian vernacular names in many cases.

**** with **HARTLEY,** G. INNESS, and **HOWES,** P. G.

1917. Tropical wild life in British Guiana; zoological contributions from the Tropical research station of the New York zoological society. Introduction by Colonel Theodore Roosevelt, vol. I–. *8vo.* Vol. I, *pp. xx+(2)+23–504. front. 143 figs.* (*4 col., 3 maps*). *T. of c. index. New York.*

This volume represents the results of the first season's work at the tropical research station near Bartica, British Guiana, from March to August 1916. Invaluable studies were made on the breeding habits, etc., of the Tinamous, Hoatzins, Toucans, Anis, and Jacanas. A less scientific account of the year's work will be found in the author's *Jungle Peace* (1918). It is probable that no further volumes will appear in the present form, the research work being recorded elsewhere.

1918. Jungle peace. Illust. from photos. *8vo. pp. (10)+297. front. 15 pl. T. of c. index. New York.*

A delightful book, telling the same story as the author's *Tropical Wild Life in British Guiana*, 1917, only in a fashion that appeals more directly to the layman. All but three chapters had already appeared in the *Atlantic Monthly*. The copy in hand is the rare first issue, without the introduction by President Roosevelt that appeared in later editions.

1918–22. A monograph of the pheasants. Pub. under the auspices of the New York Zoological Society. *4 vols. 4to.* Vol. I, *pp. xlix+(1)+198. front.* (*col.*). *18 pl.* (*col.*). *16 pl.* (*photograv.*). *5 maps* (*col.*). *T. of c.* Vol. II. *pp. xv+(1)+269. front.* (*col.*). *23 pl.* (*col.*). *24 pl.* (*photograv.*). *5 maps* (*col.*). *T. of c.* Vol. III, *pp. xvi+204. front.* (*col.*). *23 pl.* (*col.*). *21 pl.* (*photograv.*). *4 maps* (*col.*). *T. of c.* Vol. IV, *pp. xv+(1)+242. front.* (*col.*). *22 pl.* (*col.*). *27 pl.* (*photograv.*). *6 maps* (*col.*). *T. of c. index. London.*

A monumental and notable modern ornithological work. It embraces a description of all species of pheasants so far known, the author having made special expeditions to obtain his material. The illustrations by such well-known artists as A. Thorbun, L. A. Fuertes, H. Grönvold, G. E. Lodge, H. Jones, Chas. R. Knight, and E. Megargee are very fine, and the photographs of habitat and scenery, taken by the author, add much to the beauty and value of this great work. Six hundred copies only of this edition were printed, of which this copy is No. 263. A smaller edition in two volumes with title *Pheasants their Lives and Homes*, was issued in 1926, the technical descriptions of the birds being omitted, as well as a large number of the colored and uncolored plates.

1919. Jungle peace. *Illust. 8vo. pp. (12)+295. front. 15 pl. T. of c. index. London.*

The English edition of the first issue, New York, 1918, without alterations.

1919. Jungle peace. *Illust. 8vo. pp. (10)+297. front. 15 pl. T. of c. index. New York.*

A reprint of the first edition, N.Y., 1918, published in New York, 1918 (q.v.).

1921. Edge of the jungle. *8vo. pp. (8)+303. T. of c. append. index. New York.*

A second series of essays on jungle life, similar to those in *Jungle Peace*, 1918, and which like them had already appeared in the *Atlantic Monthly* and other magazines. They relate to the same Bartica District in British Guiana in which the Tropical Research Station of the New York Zoological Society is situated.

1922. The edge of the jungle. *post 8vo. pp. (8)+9–237. front. 5 pl. T. of c. append. index. London.*

The English edition—with illustrations—of the original one published in New York, 1921 (q.v.). In this edition no mention whatever is made of the fact that the matter comprising the volume had already appeared as articles in various American magazines, thus leading an English purchaser to imagine he was obtaining a fresh publication. With regard to this somewhat dubious method, see a review of this edition in *Ibis*, July 1922, p. 577.

1924. Galapagos, world's end. With 24 coloured illustrations by Isabel Cooper, and 83 photos., mostly by John Tee-Van. Published under the auspices of the New York Zoological Society. *27 cm. pp. 22+443. col. front. pl.* (*part col., 1 double*). *ports. maps.* Bibliography of the more important publications relating to the Galápagos archipelago, pp. 436–8. *New York.*

A record of spontaneous observation, a crystallization of the more obvious and characteristic impressions of the land and sea, of birds, reptiles, fish and insects. *Preface.*

1926. Pheasants, their lives and homes. Published under the auspices of the New York Zoological Society. *2 vols. 4to.* Vol. I, *pp. xxviii+(2)+257. front.* (*col.*). *14 pl.* (*col., 1 eggs*). *19 pl. 1 map. T. of c.* Vol. II, *pp. xv+(3)+309. front.* (*col.*). *16 pl.* (*col.*). *13 pl. T. of c. 2 append. index. Garden City, N.Y.*

In its first form this work appeared in four folio volumes under the title *A Monograph of the Pheasants*, 1918–22, the edition being limited to 600 copies. The present two volumes include all but the technical descriptions of the birds, and are, in effect, a summary of their known natural history, much of which has been rewritten and brought up to date by the inclusion of the most recent discoveries, especially those of M. Jean Delacour in Cochin China. For details of exact distribution, and intensive descriptions of plumages, evolution, etc., it is necessary to refer to the larger work. The colored illustrations, which are very fine, are by Thorburn, Grönvold, Fuertes, Knight, Lodge, and Jones. The present copy is of the first edition after the printing of 201 *de luxe* copies.

[**1927**]. Jungle days. Col. jacket and lining painted by Isabel Cooper. *Illust. 8vo. pp. vi+205. front. 9 pl. T. of c. index. New York.*

A delightful account of the smaller animals and insects, etc., discovered by the author around his British Guiana laboratory. References to birds are scattered throughout the volume.

1927. The Log of the Sun. *1 vol. 8vo. New York.*

Apparently a reissue of the first edition, 1906.

1927. Pheasant jungles, with sixty illust. *8vo. pp. xiii+248. front. 57 pl. T. of c. index. New York.*

An outcome of the author's larger work, *A Monograph of the Pheasants*, 1918–22. The present work records a few of the author's adventures in the Far East. There are many references to pheasants, and the nest and eggs of the Himalayan Nutcracker is portrayed, but there are no illustrations of pheasants.

BEEBE, *Mrs.* M. B. *See* BEEBE, CHARLES WILLIAM, 1910.

BEECHEY, FREDERICK WILLIAM [1796–1856].

1839. The Zoology of Capt. Beechey's voyage to the Pacific and Behring's Strait . . . in H.M.S. Blossom . . . 1825–28. *4to. pp. 12+186. 44 col. pl. 3 col. maps.* *London.*

Of this famous scientific expedition J. Richardson described the mammalia, N. A. Vigors the ornithology, G. T. Lay and E. T. Bennett the fishes, and J. E. Gray the reptiles and batrachians.

BEETHAM, BENTLEY.

1910. The home-life of the spoonbill, the stork and some herons. *8vo. pp. viii+47+(5). 32 pl. (35 figs.). T. of c.* *London.*

Illustrated by 35 fine photographs mounted on 16 leaves at the end of the volume.

1911. Photography for bird-lovers: a practical guide. *8vo. pp. (8)+126. front. 15 pl. 4 figs. T. of c. index.* *London.*

A practical manual of Bird-photography dealing with every phase of the subject, including instructions for color photography and cinematographic work. The subject of apparatus is considered at considerable length, based on the author's ample experience which should prove useful to beginners in securing a proper equipment at the outset.

1927. Among our banished birds. *8vo. pp. xi+(1)+227. front. 15 pl. T. of c.* *London.*

A charming account (with many fine photographs) of the author's wanderings in Europe for the purpose of studying numerous colonies of birds which formerly bred in the British Isles, and would probably do so again if they could find sanctuary there. They include the Avocet, Spoonbill, Black-tailed Godwit, Black Tern, Black-winged Stilt, Pratincole, Kentish Plover, Buff-backed Heron and Egret.

BEETON, SAMUEL ORCHART [1831–77].

n.d. Book of birds, showing how to rear and manage them in sickness and in health. Cheap edition. *8vo. pp. xii+352. front. (col.) 5 pl. (col.). 96 figs. T. of c.* *London.*

BEHN, D. H. *See* KLEIN, J. TH., 1760.

BEHNING, ARVID.

1928. Das Leben der Wolga; zugleich eine Einführung in die Fluss-Biologie. *8vo. pp. 6+162. illust.* *Stuttgart.*

Bibliography, pp. 142–7.

BEIBLATT ZUM JOURNAL FUER ORNITHOLOGIE. *See* JOURNAL FUER ORNITHOLOGIE; *also* ORNITHOLOGISCHE MONATSBERICHTE.

BEILBY, RALPH [1744–1817].

1790. A general History of Quadrupeds. The textual part of Bewick's treatise. *8vo.* (Wanting.)

The first of many printings.

1797. A History of British Birds. Vol. I, Land Birds. The illustrations by T. Bewick. *4to. pp. 6+30+335.* *Newcastle.*

This is the very rare, first edition (no copy in the Br. Museum library) of the text intended to describe Bewick's woodcuts. The same author wrote the corresponding text for Bewick's Quadrupeds. *See* BEWICK and BEILBY.

1797. History and description of land birds. *pp. 6+30+335. illust.* (*in* Bewick, Thomas, 1753–1828, *History of British Birds,* 1797–1804, vol. 1). *Newcastle.*

1809. History and description, etc. Third edition.

1821. History and description, etc. Fifth edition. History and supplement with additional figures. *pp. 51+330.* *Newcastle.*

1832. History and description, etc. Seventh edition.

1847. History and description, etc, Eighth edition.

BEITRAEGE ZUR FAUNA SINICA. 1922–*date.* *Berlin.*

BEITRAEGE ZUR FORTPFLANZUNGSBIOLOGIE DER VOEGEL MIT BERÜCKSICHTIGUNG DER OOLOGIE. *Berlin.*

Herausgegeben von Dr. L. von Boxberger, Berlin. Issued every two months. Vol. I, No. 1, Sept. 1924. Vol. I, No. 2, Nov. 1924, and continuation.

A periodical devoted to observation and report of the habits of birds—their biology in the restricted sense. The list of contributors to this serial and the titles of the papers point in the direction of a want that is being filled for the first time in the history of avian periodical literature. Dr. Ernst Hartert furnishes notes on the nesting habits of Desert Birds; Prof. H. Krohn speculates on the recognition of sex by birds; Count O. von Zedlitz has a paper on the nesting habits of *Mergus merganser* in Sweden; and there are many interesting articles on breeding habits by well-known observers and writers.

BEITRAEGE ZUR NATURGESCHICHTE OSTASIENS. *Munich.*

1906–*date.* Supplement to K. Bayerische Akademie der Wissenschaften Math. Phys. Klasse—Abhandlungen.

BEITRAEGE ZUR NATURGESCHICHTE DES SCHWEIZERLANDS. 1775. (Wanting.) *Bern.*

BEITRAEGE ZUR NATUR- UND HEILKUNDE. 1825–6. *Wurzburg, Nuremberg.*

BEITRAEGE ZUR NATUR- UND KULTURGESCHICHTE LITHAUENS UND ANGRENZENDER GEBIETE. *Munich.*

1912–*date.* Supplement to K. Bayerische Akademie der Wissenschaften. Math. Phys. Klasse—Abhandlungen.

BEITRAEGE ZUR NATURKUNDE. *Kiel.*

1805–10. Continues Archiv für die Systematische Naturgeschichte.

BEITRAEGE ZUR NATURKUNDE PREUSSENS. (Physik-oekonomische Gesell. Königsberg.) 1868–1912.

BEITRAEGE ZUR NATURKUNDE UND DEN DAMIT VERWANDTEN WISSENSCHAFTEN. 1787–92? (Wanting.) *Hanover, Osnabrück.*

BEITRAEGE ZUR NORDWESTDEUTSCHEN VOLKS- UND LANDESKUNDE. 1895–1901. *See also* NATURWISSEN. VEREIN ZU BREMEN. *Bremen.*

BEITRAEGE ZUR RHEINISCHEN NATURGESCHICHTE. 1849–53. *Freiburg.*

BEITRÄGE ZUR ZOOGEOGRAPHIE DER PALÄARKTISCHEN REGION. Herausgegeben von der Ornithologischen Gesellschaft in Bayern.

1919. *Tinted Wrappers. 8vo.* Heft I. Sept. 1919. *pp. 56. 1 map. T. of c.* (all pub.). *München.*

The contents of the first part are two carefully written articles by Erwin Stresemann on the geographical distribution of several palaearctic species.

BEKKER, C. W. and **others.**
[1800]–17. Teutsche Ornithologie. *See* BORKHAUSEN, M. B.

******, LICHTHAMMER** (et al).
1837–41. Deutsche Ornithologie oder Naturgeschichte aller Vögel Deutschlands, etc. *74 col. pl. Stuttgart.*

BELANY, JAMES COCKBURN.
1841. A treatise upon falconry. In two parts. *8vo. pp. vii+(5)+277+(1)+6. front. Berwick-upon-Tweed.*

Part 1 of this work contains observations upon the nature, antiquity, and history of falconry, that of part 2 notices of the different hawks used in British hawking, the proper method of keeping, training, and flying the birds, and the apparatus belonging to the art. A glossary of terms used in falconry is given at the end of the book.

BELCHER, W. J. *See* ORIGINAL DRAWINGS, BELCHER, W. J.

BELDING, LYMAN.
1890. Land birds of the Pacific district. (California Academy of Sciences.) *8vo. pp. (4)+274. append. index.* Author's reprint. *San Francisco.*

An annotated list of the 295 species known to occur in the district, which embraces California, Oregon, Washington, and Nevada. It was prepared originally as a report submitted to the U.S. Dept. of Agriculture and consists of the author's own observations on the arrival and departure of migrating species, as well as those of other workers.

BELFAST NATURAL HISTORY AND PHILOSOPHICAL SOCIETY. *Belfast.*
1871/2–*date*. Proceedings and Reports.

1924. Centenary volume, 1821–1921; a review of the activities of the society for 100 years with historical notes, and memoirs of many distinguished members, ed. by Arthur Deane. *8vo. pp. 8+212. portr. pl. Belfast.*

BELFAST NATURALISTS' FIELD CLUB.
1863–*date*. Annual Report and Proceedings.

BELGIUM. Commission de la 'Belgica'.
1901–13. Résultats du Voyage . . . en 1897–9, etc. Vols. I–X. *4to. Anvers.*

Relatively few vertebrates were collected and described. Fishes were examined by L. Dollo, 1904, pp. 240, 10 pl., 2 col. maps; cetaceae by E. G. Racovitza, 1903, pp. 142, 4 pl., figs. in text; seals (in English) by G. E. H. Barrett-Hamilton, 1901, pp. 19, 1 pl.

BELL, F. J.
1878. On certain variations in the vocal organs of the Passeres, etc. *See* MÜLLER, JOHANNES.

BELL, THOMAS [1792–1880].
1837. A history of British quadrupeds, including the *Cetacea*. 200 woodcuts. *8vo. 22½ cm. pp. xviii, 526. illust. London.*

An excellent early treatise. The present copy has ten pages of MSS. by H. Kirke Swann.

1839–43. *See* ZOOLOGY OF THE VOYAGE OF H.M.S. BEAGLE.

1839. A history of British Reptiles, etc. *8vo. pp. 14+142. London.*

A useful and early work on British herpetology.

1874. A history of British quadrupeds, including the cetacea. 2nd ed., rev. and partly rewritten by the author, assisted by R. F. Tomes and E. R. Alston. *8vo. pp. 18+474. illust. London.*

1877. The natural history and antiquities of Selborne. *See* WHITE, *Rev.* GILBERT.

BELLAMY, FRANK ARTHUR.
n.d. A Historical Account of the Ashmolean Natural History Society of Oxfordshire, 1880–95.

BELLAMY, JOHN CREMER [1812–54].
1839. The natural history of South Devon. *8vo. pp. xxvi+(2)+viii+455. 80 engrav. 9 lithogr. 5 maps (fold.). T. of c. index. Plymouth.*

BELLONIUS, P. (**BELON,** PIERRE) [1517–64].
1553. De aquatibilibus libro duo, cum eiconibus ad vevam ipsorum effigiem, quoad eius fieri potuit, expressis. *4to. With many contemp. col. woodcuts. Paris.*

1553. Petri Bellonii Cenomani De aquatilibus, libri duo cum ει conibus ad viuam ipsorum effigiem, quoad eius fieri potuit, expressis . . . *12×17 cm. pp. 16+448. illust. Parisiis.*

Belon is looked upon as the founder of modern ichthyology as well as an authority on ornithology. The illustrations of fishes and some other aquatic animals in this volume are of exceptional quality for the sixteenth century, although some of them are fanciful.

1555. L'histoire de la natvre des oyseavx, avec levrs descriptions, & naïfs portraicts retirez dv natvrel: escrite en sept livres, par Pierre Belon du Mans. *folio. pp. 28+381. illust. Paris.*

On pp. 40 and 41 are the portraits of the skeletons of man and bird to show the affinity between them. This is one of the earliest illustrations of comparative anatomy. Belon was the first to attempt to identify the names of birds given by Aristotle and by Pliny with those current in France.

1555. La Nature et Diversité des Poissons, avec leurs portraicts, etc. *pp. 448. Paris.*

A companion work to his remarkable, original and early treatise on the comparative anatomy of birds.

1605. Plurimarum singularium et memorabilium rerum in Graecia, Asia, Ægypto, Judaea, Arabia, aliisque exteris provinciis ab ipso conspectarum observationes tribus libris expressae. Carolus Clusius Atrebas e Gallicis Latinas faciebat, et denuo recensebat. Altera ed., longe castigator, et quibusdam scholiis illustrata. *folio. pp. [12]+242+[30]. illust. Antverpiae.*

BELT, THOMAS [1832–78].
1874. The naturalist in Nicaragua: a narrative of a residence at the gold mines of Chontales; journeys in the savannahs and forests. With observations on animals and plants in reference to the theory of evolution of living forms. *8vo. pp. xvi+403. front. 3 pl. 23 figs. 1 map (col. fold.). T. of c. index. London.*

References to birds are scattered throughout this volume, with five illustrations of them.

1888. The naturalist in Nicaragua. *Second edition.* Revised and corrected. With map and illustrations. *8vo. pp. xxxii+403. front. (portr.). 3 pl. 23 figs. 1 map (col. fold.). T. of c. index. London.*

A revised and corrected edition of the first issue of 1874. The intrinsic merits of the book, of which Darwin spoke so highly, resulted in this second edition, after the death of the author in 1878.

BELVALLETTE, ALFRED.
1903. Traité de fauconnerie et d'autour-série, suivi d'une étude sur la pêche au cormoran. *4to. pp. (12)+269. 34 pl. 52 figs. T. of c. Evreux.*
A treatise on falconry and on the art of training the goshawk and sparrowhawk, with a dictionary of words used in falconry.

BEMMELEN, J. A. VAN.
1869–71. Jaarbericht van de Rotterdamsche Diergaarde over 1868–71. *8vo.* (Wanting.) *Rotterdam.*

BENDIRE, CHARLES EMIL [1836–97].
1891. Directions for collecting, preparing and preserving birds eggs and nests. *4to. pp. [10]. illust.* Separate U.S. National Museum. Bulletin, pt. D, no. 29. *Washington.*
A very useful and popular tract for the purpose indicated.

1892–5. Life histories of North American birds, [from the parrots to the grackles,] with special reference to their breeding habits and eggs. *2 vols. 4to.* Vol. I, *pp. viii+446. 12 pl. (col. eggs). T. of c. index.* Vol. II, *pp. ix+(1)+518. 7 pl. (col. eggs). T. of c. index. Washington.*
Owing to the death of the author these two volumes are all that were published of Bendire's great work, which is now being continued by A. C. Bent (q.v.). Detailed accounts of habits and nidification were based mostly on the author's personal observations, with copious notes from other sources making the work at the time the most authoritative in its particular line. The second volume, although not so indicated on the title-page, is Special Bulletin No. 3 of the U.S. National Museum.

1893. The Cowbirds. *Illust.* (U.S. Nat. Museum.) Author's separate.

BENDYSCHE, THOMAS. **1865.** *See* BLUMENBACH, JOHANN FRIEDRICH.

BENECKE, B. A. and **KUPFFER,** C. W. VON.
1879. Photogramme zur Ontogenie der Vögel. *4to. pp. 48. 15 pl.*
This important contribution to avian embryology forms part of vol. XLI, *Nova Acta, Academia Caesarea.*

BENEDEN, ÉDOUARD VAN [1846–1919].
1870. Recherches sur la composition et la signification de l'Œuf, etc. *4to. pp. 283. 12 pl. Brussels.*
This essay on the egg was originally published as a *Mémoire couronné* by the *Académie Royale des Sciences,* Vol. 34.

BENEDEN, PIERRE JOSEPH VAN [1809–94].
1889. Histoire Naturelle des Cétacés des Mers d'Europe. *8vo. Bruxelles.*
Originally published by the *Académie Royale des Sciences* as a *Mémoire couronné.*

BENGAL. *See* ASIATIC SOCIETY OF BENGAL.

BENISON, H. W. S. WORSLEY-. *See* WORSLEY-BENISON, H. W. S.

BENNETT, EDWARD TURNER [1797–1836].
1829. The Tower menagerie: comprising the natural history of the animals contained in that establishment; with anecdotes of their characters and history. Illustrated by portraits of each, taken from life, by William Harvey; and engraved on wood by Branston and Wright. *London.*
A famous descriptive catalogue but not of much scientific value.

1830–1. The gardens and menagerie of the Zoological society delineated. *2 vols. 8vo. illust. Chiswick.*
CONTENTS. Vol. 1. Quadrupeds. 2. Birds.

BENNETT, FREDERICK DEBELL.
1840. Narrative of a Whaling Voyage, etc. *2 vols. 8vo. London.*

BENNETT, GEORGE [1804–93].
1834. Wanderings in New South Wales, Batavia, Pedir coast, Singapore, and China; being the journal of a naturalist in those countries, during 1832, 1833, and 1834. *2 vols. in 1. 8vo.* Vol. I, *pp. (4)+vii–xv+(3)+440. front. 5 figs. T. of c.* Vol. II, *pp. vii+(1)+428. front. 2 figs. T. of c. append. London.*
The results of a series of excursions into the interior of New South Wales, the author having limited himself to notes taken at the instant of observation. References to birds are numerous.

1837. Catalogue of . . . Natural History . . . in the Australian Museum. *8vo. Sydney.*

1860. Gatherings of a naturalist in Australasia; being observations principally on the animal and vegetable productions of New South Wales, New Zealand, and some of the Austral Islands. *8vo. pp. xii+456. front. (col.). 7 pl. (col.). 24 figs. T. of c. London.*
An interesting account of the author's observations on the flora and fauna of Australasia, in which birds figure largely, at least half of the 23 chapters containing references to the class Aves, whilst one of the colored plates depicts the Australian Jabiru.

n.d. On the avi-fauna of New Guinea. With particular reference to the birds of paradise inhabiting that and the adjacent islands. *8vo. pp. 8. Sydney.*

BENNETT, JAMES V.
1919. The passenger pigeon in Pennsylvania, &c. *See* FRENCH, J. C.

BENNETT, JOHN WHITCHURCH.
1834. A Selection . . . of the Fishes found upon the coast of Ceylon. *4to. 30 col. pl. London.*
This is the second edition of a well-known and important treatise. The first edition appeared in 1830.

1841. A Selection of Rare and Curious Fishes found upon the Coast of Ceylon. 3rd ed. *4to. col. pl.*

1851. Selection of Rare and Curious Fishes found upon the Coast of Ceylon, from Drawings made in that Island. *4to. 30 fine plates (printed in brown).*
A revised edition of this valuable work.

BENOIT, LUIGI [1804–90].
1840. Ornithologia Siciliana; o sia, Catalogo ragionato degli uccelli che si trovano in Sicilia. Two indexes, one of French, the other of Sicilian names of the birds. *8vo. pp. 8+231. Messina.*
A rather good account, including synonymy, habits, and characters of the birds of Sicily.

BENSON, CHARLES WILLIAM [*nat.* 1836].
1901. Our Irish song birds. Second edition. *8vo. pp. xv+206. T. of c. 5 pl. Dublin.*
The first edition of this popular work was published in 1886.

BENSUSAN, SAMUEL LEVY [1872–].
1908. The heart of the wild, nature studies from near and far. Illust. (photos.). *12mo. pp. xi+(1)+297. front. 7 pl. T. of c. London.*
A series of stories that, in each instance, end with the violent death of the bird or beast whose life-story is set out. The birds selected are the Golden Eagle, Red Grouse, Flamingo, Cuckoo, and White Stork.

BENT, ARTHUR CLEVELAND [1866–].

1912. A new subspecies of crossbill from Newfoundland. *4to. pp. [2]+3.* (Smithsonian Miscell. Collections, vol. 60, no. 15.) Author's separate.

1919. Life histories of North American diving birds. Order Pygopodes. *8vo. pp. xiv+245. 55 pl., 12 col. (eggs). index.* (Smithsonian Institution, U.S. Nat. Mus. Bulletin 107.) *Washington.*

The above is written as a continuation of the work begun by Major Charles E. Bendire in his *Life Histories of North American Birds,* and forms a most useful and interesting introduction to the author's other monographs. He was fortunate in having many voluntary contributions to his series from all parts of America.

1921. Life histories of North American gulls and terns; order Longipennes. *8vo. pp. x+345. 93 pl. (17 col. eggs). index.* (Smithsonian Institution, U.S. National Museum. Bulletin 113.) *Washington.*

One of the excellent monographs by this author.

1922. Life histories of North American petrels and pelicans and their allies; order Tubinares and order Steganopodes. *8vo. pp. xii+343. 69 pl. T. of c. index.* (Smithsonian Institution, U.S. Nat. Mus. Bulletin 121.) Author's separate. *Washington.*

This systematic monograph, one of a most important series by the author, is intended to cover the life-histories of American birds.

1923. Life histories of North American wild fowl. Order Anseres. *8vo. pp. x+245. 46 pl. index.* (Smithsonian Institution, U.S. National Museum Bulletin, no. 126.) *Washington.*

This author's separate is the first edition of the fourth series on the histories of North American birds.
The volume discusses the Anatidae as far as *Perissonetta collaris.* For a continuation see the second edition, 1925. The plates are excellent.

1925. Life histories of North American wild fowl. Order Anseres. *8vo. pp. x+376. 60 pl. index.* (U.S. National Museum. Bulletin no. 130.) *Washington.*

The continuation of the first edition, dated 1923, of these excellent monographs. The life-history of the Anatidae is carried to and includes *Cygnus buccinator.* There is an extensive bibliography, pp. 302–12.

1926. Life histories of North American marsh birds. Orders Odontoglossae, Herodiones and Paludicolae. *8vo. pp. xi+490. front. 97 pl. T. of c. index.* (U.S. Nat. Museum. Bulletin 135. Author's reprint.) *Washington.*

The sixth volume of this series, the treatment following exactly the same plan as previously established. The 98 plates contain some very fine examples of bird photography. Dr. Chas. W. Townsend prepared five of the life-histories, T. E. Penard that of the Scarlet Ibis, whilst the Rev. P. B. Peabody is responsible for much of the account of the Yellow Rail.

1927. Life histories of North American shore birds. Order Limicolae (Part 1). *8vo. pp. ix+(1)+420. front. 54 pl. T. of c. index.* (Bull. 142, U.S. Nat. Museum. Author's separate.) *Washington.*

The seventh volume of the *Life-Histories of North American Birds,* covering about half of the Shore-birds (from Scolopax to Totanus) in the sequence of the A.O.U. 'Check-List'. Many of the life-histories of the rarer shore-birds are adequately presented for the first time; the illustrations are, as usual, excellent.

BENTHAM, HOWARD.

[**1925**]. The pocket book of British birds. *See* KEARTON, R.

BERAJAH, ZOOGRAPHIA INFINITA.

1905–*date.* Edited by O. Kleinschmidt. Pub. by W. Schluter, Halle. Irregular arrangement of text and pagination. Variously colored wrappers. *4to.* Current. Many colored and other plates and maps.
Falco (q.v.) published as a supplement; the issue in 1906. All issues except the first are unnumbered and the paging of each is, not to use a stronger term, 'peculiar'.
Lieferung I. 1905. *22 pp. 10 pl., mostly colored.* (Saxicola Borealis.)
[Lieferung II.] 1906. *20 pp. 10 pl., mostly colored.* (Strix Flammea.) Supplement. *2 pp.* Pub. by Erwin Nagele, Leipzig.
[Lieferung III.] 1907. *6 pp. 3 pl., 2 colored.* (Strix Athene.)
[Lieferung IV.] 1907/8. *12 pp. 7 pl., 5 colored. 1 table.* (Erithacus Domesticus.)
[Lieferung V.] 1908. *8 pp. 1 table.* (Aufang und Ende.) Second sub-title: 'Eine Naturgeschichte und Naturgeographie auf Kantscher Basis'. Pub. by Gebauer—Schwetschke, Halle.
[Lieferung VI.] 1908. *2, 4, 2, 1, 2, 2 pp. 4 col. pl.* (Subgenus Phoenicurus, etc.) Second sub-title omitted.
[Lieferung VII.] 1908. *14 pp. 3 col. and 1 black pl.* (Erithacus Arboreus.)
[Lieferung VIII.] 1909. *2 pp. 1 col. and 1 black pl.* (Erithacus Sialia.)
[Lieferung IX.] 1909/10. *40 pp. 26 black pl.* (Corvus Nucifraga.)
[Lieferung X.] 1911. *4, 4, 4 pp. 8 pl., 3 colored.* (Various.)
[Lieferung XI.] 1912. *6, 6 pp. 9 pl. col.* (Falco Peregrinus.)
Lieferung XII. 1913. *16, 4 pp. 11 col. and black pl.* (Various.)
Lierferung XIII. 1914. *7–22 pp. Pl. IV–XXVII, colored.* (Continuation of Falco Peregrinus.) *illust. text.*
Lieferung XIV. 1915. *23–30 pp. Pl. XXXII–XXXV, 2 colored.* (Continuation of Falco Peregrinus.)
Lieferung XV. 1916. *31–8, 2 pp. 3 pl., 2 colored.* (Various.)
Lieferung XVI. 1917. *47–54 pp.* (Falco Peregrinus.)
Lieferung XVII. 1918. *55–62 pp. illust. in text.* (Falco Peregrinus.)
Lieferung XVIII. 1919/20. *7–14 pp. 2 col. pl.* (Parus Salicarius.)
Lieferung XIX. 1920. *63–78, 2, 2, 2, 2 pp. 8 pl., 3 colored.* (Various.)
Lieferung XX. 1921. *15–31 pp. illust. in text.* (Parus Salicarius.)

Under the date of 1908 (Seite I), title 'Aufang und Ende', and elsewhere the Editor defines the meaning and scope of this remarkable serial-periodical as, briefly, an attempt to correlate the science and art of Kant with the concepts of modern science. In particular he studies the effect of locality on the different races—especially of birds—and dwells much on the various avian phases as influenced by geographical distribution. To the average reader *Berajah* (and *Falco*) will appear as a collection of scientific essays tinged with transcendentalism. However, few periodicals are so magnificently and sympathetically illustrated and so beautifully printed. The great majority of the contributions are from the pen of the editor. The initial capital letter of the specific names is the editor's choice.

BEREZOVSKIĬ, MIKHAIL MIKHAĬLOVICH.

1891. Aves expeditionis Potanini per provinciam Gan-su et confinia 1884–87, auctoribus M. Berezowski & V. Bianchi. *folio. pp. [2]+40+155. illust. pl.* In Russian. *St. Petersburg.*

BERG, BENGT (BENT) MAGNUS KRISTOFFER [1885–].

1916. Sällsynta fåglar. Långnabban. Första Samlingen. *4to. pp. 32. 15 photopl. Stockholm.*

A well-illustrated description (in Swedish) of the following Long-bills: *Limosa aegocephala, Podiceps auritus, Sterna nigra,* and *Larus minutus,* with their native names. The monograph is a repaged excerpt with a separate title, the copy in hand from the Reichenow collection presented by the author.

1916. Sällsynta Fåglar. Dvärgmåsen. *4to. pp. 77–145. map. 29 photoplates. Stockholm.*

A continuation of the author's Swedish monographs on shore and sea-birds. The present volume is from Prof. Reichenow's library.

1919. Sällsynta Fåglar. Andra Samlingen. *4to. pp. 342. 61 photoplates. Stockholm.*

A repaged and entitled excerpt on Swedish sea-birds. This volume deals with Skräntärnan (*Sterna caspia*), Dvärgtärnan (*Sterna minuta*), and Grågåsen (*Anser cinereus*). The large photo illustrations are excellent. The present copy is *ex libris* Prof. Reichenow.

1920. Hägrarnoch Storkar; en Bok om skånska Fåglar. *4to. pp. 268. col. front. col. illust. on wrapper. 64 pl. (2 col.). Stockholm.*

A popular monograph on the storks and herons of Northern Europe with excellent plates.

1925. Mit den Zugvögel nach Afrika. *132 illust. Berlin.*

Second edition of a popular work on migration. An English translation by F. R. Barton was issued in 1931.

1927. Mein Freund der Regenpfeifer. Vierte Auflage. [Tr. from the Swedish by Edmund Herms.] (Bengt Berg's *Illustrierte Tierbücher.*) *pp. 111+(1). vignette (portr.). 73 figs. Berlin.*

A translation from the Swedish (fourth edition) of the genial story of the Dotterel (*Eudromias* or *Charadrius morinellus*), the Lahol of the Lapps, in its northernmost haunts. Richly illustrated from excellent photographs.

1928. Tookern, der See der wilden Schwäne; [tr. from the Swedish by Edmund Herms]. (Bengt Berg's *Illustrierte Tierbücher.*) *8vo. pp. 222. illust. Berlin.*

? 1928. Die letzten Adler.

One of several popular books by this scientific writer.

BERGENS MUSEUM, NORWAY. *Bergen.*

1883–*date.* Aarbog.

1892–1930. Aarsberetning.

1901–6. Meeresfauna.

1847–9. Skirner.

1883–1905. Skrifter. Series 1.

1909–*date.* Skrifter. New series.

BERGSON, HENRI LOUIS [1859–].

1913. Creative Evolution. Trans. by Arthur Mitchell. *8vo.* [O.] *London.*

BERGTOLD, WILLIAM HARRY [1865–].

1917. A study of the incubation periods of birds; what determines their lengths. *8vo. pp. 109. bibliogr. Denver, Col.*

These pages give the results of a detailed study of this phase of bird physiology, from which the author concludes that 'a bird's temperature determines or fixes the time of its incubation period'—the higher the temperature the shorter the period. This copy is a presentation from the author to Dr. Casey Wood.

BERICHT DER BAMBERG. Naturforsch. Gesellschaft. 1852–*date.* *See* BAMBERG.

BERICHT DER BASEL. Naturforsch. Gesellsch. 1834–*date.* *See* BASEL.

BERICHT DER BAUTZEN. Naturwissensch. Gesellschaft. 1896–*date.* *See* BAUTZEN.

BERICHT DER BAYREUTH. Naturwissensch. Gesellschaft. 1911–14. *See* BAYREUTH.

BERICHT D. CHEMNITZ. Naturwissenschaft. Gesellschaft. 1859–*date.* *See* CHEMNITZ.

BERICHTE DER DEUTSCH. ORNITH. GESELLSCHAFT.

1840–*date.* *See* DEUTSCHE ORNITH. GESELLSCHAFT.

BERICHTE D. FREIBURG IN BREISGAU. Naturforschende Gesellschaft. 1886–*date.* *See* FREIBURG IN BREISGAU.

BERICHTE D. KGL. ZOOLOG. . . . MUSEUMS ZU DRESDEN. 1886–*date.* *See* DRESDEN.

BERICHTE ÜBER DIE MITTEILUNGEN VON FREUNDEN DER NATURWISSENSCHAFTEN IN WIEN. 1846–50. *Vienna.*

BERICHTE D. MUSEUMS FÜR TIERKUNDE UND VÖLKERKUNDE ZU DRESDEN. 1886–*date.* *See* DRESDEN.

BERICHTE DER NATURWISSENSCHAFTL. VEREIN DES HARZES ZU BLANKENBURG. 1840–62. *See* BLANKENBURG.

BERICHTE VEREINS SCHLESISCHER ORNITHOLOGEN. Published for the Society at Neisse. Paul Kollibay, Editor.

1904–12. *8vo.* 5 Berichte. All issued? Tinted, pictured covers. The parts were published the year following that covered by the review.

Erster Bericht (1904–5). *30 pp. T. of c.*
Zweiter Bericht (1906–7). *28 pp. T. of c.*
Dritter Bericht (1908–9). *80 pp. T. of c.*
Vierter Bericht (1910–11). *66 pp. T. of c.*
The first half of 1911 is reviewed in this volume.
Fünfter Bericht (1911, Second half, 1912). *88 pp. T. of c.*

As the title implies, these *Berichte* record mainly the local activities of the Silesian Society of Ornithologists. Among the contributors are the Editor, J. H. Klopfer, C. Zimmer, G. Martini, and Borrmann.

BERICHTE ÜBER DIE VERHANDLUNGEN. FREIBURG IN BREISGAU. Naturforschende Gesellschaft.

1858–85. Continued as Berichte, etc. *See* FREIBURG IN BREISGAU.

BERICHT ÜBER DIE LEISTUNGEN IN DER NATURGESBERICHTE DER VÖGEL WÄHREND DES JAHRES 1857–1870. By G. Hartlaub, Bremen; 1889–93, by Dr. Reichenow, Berlin.

Although the yearly review of von Pelzeln bridges (in the E.S.W. Library) the void between the separately published extracts above noted it has nothing to do with the *Archiv für Naturgeschichte* from which the latter are (with the pagination of the journal) printed. The periodical status of this and similar annuals is discussed in the introduction to this *Catalogue*.

BERICHT DER NATURHISTORISCHER VEREIN, AUGSBURG.
1848–*date*. *See* AUGSBURG.

BERICHT D. NATURWISSENSCHAFTL. VEREIN F. BIELEFELD U. UMGEBD.
1908–*date*. *See* BIELEFELD.

BERICHT D. ORNITHOL.-OÖLOG. VEREINS ZU HAMBURG.
1897–1903. I. u. II.

A rare periodical, but of small scientific importance.

BERICHT ÜBER DIE OSTERREICHISCHE LITERATUR DER ZOOLOGIE, BOTANIK UND PALEONTOLOGIE.
1850–3. *Vienna.*

BERICHT ÜBER DAS PERMANENTE INTERNATIONAL ORNITHOLOGISCHE COMITÉ UND ÄHNLICHE EINRICHTUNGEN IN EINZELN LÄNDERN. *See also* ORNIS, and PROCEEDINGS OF THE INTERNATIONAL CONGRESS OF ORNITHOLOGY.

As in the case of other societies the Permanent Committee of the International Ornithological Congress (or some other member of it) occasionally printed a report of the Proceedings apart from that appearing in the official organ—which in this instance is *Ornis*. The following are examples of these *Berichte*:
I. Bericht. Blasius and Hayek. *64 pp.*
II. Bericht. Blasius and Hayek. *48 pp.* Another II. Bericht by Blasius alone. *58 pp.*
V. Bericht. 1891–5. Prof. Blasius. *27 pp.*

BERICHT ÜBER DIE TÄTIGKEIT DER 'HRVATSKE ORNITHOLOŠKA CENTRALA'. *See* HRVATSKE ORNITHOLŠKA CENTRALA.

BERICHT UND ÜBERSETZUNG. Aus der ornithologischen Literatur Russlands. 1919?
See AUS DER ORNITHOLOGISCHEN . . . RUSSLANDS.

BERICHT D. VEREIN F. NATURKUNDE ZU CASSEL. 1860–94. *See* CASSEL.

BERICHT UEBER DIE (JAHRES-) VERSAMMLUNG DER DEUTSCHEN ORNITHOLOGEN-GESELLSCHAFT.
1840–*date*. Nr. 1–21, **1840–75**; [Second series] *Bericht ueber die (Jahres) Versammlung der Allgemein Deutschen Ornithologen Gesellschaft 1877.*

Although the *Journal für Ornithologie* and its forerunner *Naumannia* have since their inception been the organs of the Deutsche ornithologen-Gesellschaft, and many of the papers and proceedings are regularly reported in those periodicals, yet almost every meeting is in addition reviewed more or less fully by one of its officers—usually by the president—and issued as an independent report under the style of a *Bericht*. Together these form a separate series that are very useful to the advanced student, containing as they do papers from the pen of the most accomplished of European ornithologists. The following are examples:
1860. Bericht über die XIIIte Versammlung der deutschen Ornithologen, *pp. 104*. Stuttgart. By Baldamus.
1862. Bericht über die XIIIte Versammlung der deutschen Ornithologen, *pp. 108*. Halberstadt and Brunswick. Baldamus.
1869. Bericht ueber die XVIIte Versammlung der deutschen Ornithologen-Gesellschaft. Cassel, bei Th. Fischer. 1869.
1870. Bericht ueber die XVIIIte Versammlung—zu Hannover und Hildesheim, Juni, 1870—vom Vorsitzendem Baron Droste. Published in Muenster.
1872. Bericht ueber die XIX. Versammlung der deutschen Ornithologen-Gesellschaft zu Cassel. 1872.
1873. Bericht ueber die XX. Versammlung–Braunschweig. 1873.
1878. Bericht ueber die III N.S. Jahres-Versammlung d. allgemein, deutschen ornitholog. Gesellsch. zu Berlin. 1878, Leipzig, 1879. *8vo.*
1879. Bericht ueber die XXIIte Versammlung der deutschen Ornith.-Gesell. in Dresden, Mai, 1897. *See* JOURNAL F. ORNITHOLOGIE.

BERICHT UEBER DEN VOGELZUG AUF HELGOLAND. *See* JAHRESBERICHT UEBER DEN VOGELZUG AUF HELGOLAND.

BERICHT UEBER DIE WISSENSCHAFTL. LEISTUNGEN IN DER NATURGESCH. DER NIEDEREN TIERE. 1858–88. *Berlin.*

BERKEL, ADRIAAN VAN.

1922. American voyages, containing a journey to Rio de Berbice situate in the continent of Guiana on the wild-coast of America, together with another to the colony of the said Province Guiana; tr. [from the Dutch] by W. E. Roth. *folio. pp. [4+4]+236.*

The original manuscript, presented by the translator to the Emma Shearer Wood Library of Ornithology.

BERKENHOUT, JOHN [1730–91].

1769–72. Outlines of the Natural History of Great Britain, etc. *3 vols. 16mo. London.*

First edition of a valuable history containing numerous references to the flora and fauna of the British Islands.

1795. Synopsis of the natural history of Great-Britain and Ireland . . . 3rd ed. of the Outlines, &c. corrected and considerably enlarged. *2 vols. 12mo.* Vol. I, *pp. (6)+v–xii+13–334. index.* Vol. II, *pp. (4)+466. index. London.*

A revision of the author's publication entitled *Outlines of the Natural History of Great Britain and Ireland*, etc., 1769–72. The portion treating of the birds will be found in vol. I, pp. 10–54. MS. marginal notes in ink occur throughout both volumes.

BERLEPSCH, HANS HERMANN VON [1857–1915].
1883–5. *See* TACZANOWSKI, L.

1900. Der Gesamte Vogelschutz. 4te Auf. *8 col. pl. Gera.*

1903. Der gesamte Vogelschutz seine Begründung und Ausführung. 6 vermehr. und verbesserte Aufl. *8vo. pp. viii+100. 8 col. pl. T. of c. 34 text-figs. Gera-Untermhaus.*

The sixth edition, one of the many printings of this classic, popular treatise on bird protection.

1904. Der gesamte Vogelschutz. seine Begründung und Ausführung. 9te verm. und verbess. Aufl. *8vo. pp. x+132. 9 col. pl. T. of c. 47 text-figs. Halle.*

A classic work on bird protection and culture that has been issued in many editions and translations. The present copy is a gift from the author to Prof. Ant. Reichenow, to whom it formerly belonged.

[1905 (1906)]. Descriptions of new species and conspecies of neotropical birds. *8vo. pp. 347–71.*

Author's excerpt from the *Proc. IVth Internat. Orn. Congress*, 1905 (1906), pp. 347–71. Of the 30 'new' forms described (17 species and 13 subspecies), seven had previously been named and briefly described in vol. XVI of the *Bulletin B.O.C.*, May 1906. About half of these new forms are from Argentina and Bolivia, and the others mostly from Brazil, Ecuador, and Colombia.

n.d. Studien über einige südamerikanische Vögel, nebst Beschreibungen neuer Arten, von Hans v. Berlepsch und Paul Leverkühn. *8vo. pp. 32. pl.*

BERLIN. Deutscher Seefischerei-Verein.
1895–1908. Mittheilungen. 1–10, 1885–94, as Deutscher Fischerei-Verein. *Berlin.*

BERLIN. *See* GESELLSCHAFT NATURFORSCHENDER FREUNDE. (K.) PREUSSISCHE AKADEMIE DER WISSENSCHAFTEN.

BERLINER TIERÄRZTLICHE WOCHENSCHRIFT.
1893–1906. 10 vols.

BERLIN. Friedrich-Wilhelms Universität-Zoologische Sammlung.
1888. Liste der Autoren zoologischer Artbegriffe zusammengestellt für die zoologische Sammlung des Königlichen Museums für Naturkunde in Berlin. *8vo. pp. 4+87.* *Berlin.*

Names of authors of species in the zoological collection of the Berlin Museum of Natural History, with their abbreviations. Reichenow-Cabanis collection.

BERLIN. Zoologisches Museum.
1896–1915. Bericht.
1898–*date*. Mitteilungen.

BERMUDA BIOLOGICAL STATION FOR RESEARCH. *Cambridge, Mass.*
1904–*date*. Contributions.

BERN. Naturforsch. Gesellschaft, Mitteilungen.
1823–*date*. Index.

BERN. Städtisches Naturhistorisches Museum.
1871?–*date*. Bericht.

BERNARD, PIERRE, **COUAILHAC,** L., **GERVAIS, F.L.P.** and **LEMAOUT,** EMM.
1842–3. Le jardin des plantes. Description complète, historique et pittoresque du Muséum d'histoire naturelle, de la ménagerie, etc. *26½ cm. 2 vols. front. (vol. 2) illust. pl. (partly col., partly fold.) ports. fold. plan.* Vol. 2 has title: Le jardin des plantes. Description complète, historique et pittoresque du Muséum d'histoire naturelle (oiseaux, reptiles, poissons, insectes et crustacés), par M. le docteur Emm. Lemaout. *Paris.*

A treatise by well-known zoologists, profusely illustrated and of considerable scientific importance.

BERNER MUSEUM DER NATURGESCHICHTE. *Bern.*
1869–71. Mitteilungen.

BERNERS, *Dame* JULIANA [1388–1485].
1808. Treatysse of Fysshynge with an Angle. (A carefully written MS. of 46 pp., illustrated by tracings of the original woodcuts in black laid down; together with MS. notes on fly-leaf and stating 'Transcribed Oct. 18, 1808, by (Sir) H. Ellis' (Principal librarian of the British Museum).

A unique copy of this celebrated treatise on fishing by the famous prioress of Sopwell Nunnery, forming part of the celebrated *Book of Saint Albans.* The author's name is also spelled Bernes, and Barnes.

1810. [The book of Saint Albans.] The book containing the treatises of hawking; hunting; coat-armour; fishing; and blasing of arms. As printed at Westminster, by Wynkyn de Worde, 1496. *4to. black-letter. pp.[2]+104+[172]. illust.* (Literary researches into the history of the Book of Saint Albans.) *London.*

Facsimile reprint of the rare original, printed in red and black with all the old engravings.

1880. A treatyse of fysshynge wyth an angle: being a facsimile reproduction of the first book on the subject of fishing printed in England by Wynkyn de Worde, at Westminster in 1496. With an introduction by Rev. M. G. Watkins. *29×23 cm. pp. 7+23. 2 pl.* *London.*

Another edition of this famous incunabula.

BERNHEIMER, CHARLES LEOPOLD [1864–].
1924. Rainbow Bridge; circling Navajo Mountain and explorations in the 'bad lands' of southern Utah and northern Arizona. *8vo. pp. xv+(3)+182. front. 61 pl. 3 figs.(maps). T. of c. append.* *Garden City.*

A recital of journeys, with faunal references, during the years 1915–23.

BERNICE PAUAHI BISHOP MUSEUM OF POLYNESIAN ETHNOLOGY AND NATURAL HISTORY. *Honolulu.*
1922–*date*. Bulletin.
1899–*date*. Memoirs.
1898–1923. Occasional papers.
1892–*date*. Special publications.
See also FAUNA HAWAIIENSIS.

BERNIER, J. E.
1910. Report of the 'Arctic' Expedition to Hudson Strait. *Ottawa.*

BERRIDGE, WALTER SYDNEY.
1914. Birds at the zoo. 1st series. Sixty photographs from life, with short descriptive notes. *pp. 70. 60 pl.* *London.*

Volume 13 of Gowan's Nature Books. The first edition was issued in 1907, the present copy being the second edition. A companion volume (2nd series), No. 27, was issued in 1918.

1918. Birds at the zoo. 2nd series. *pp. 73. 60 pl.* *London.*

1919. Wonders of animal life. With numerous illustrations from photographs by the author. *8vo. pp.(6)+270. front. 62 pl. T. of c. index.* *London.*

The first edition appeared in 1915, the present one being a reprint.

[1922]. Animal curiosities. *8vo. pp. (4)+7–252. front. 22 pl. T. of c. index.* *London.*

These essays are written with the idea of bringing before 'the man in the street' some of the many remarkable birds and other creatures that populate the earth.

1926. Marvels of Reptile Life. *8vo.*

BERRY, ANA M.
1929. Animals in art. *4to. pp.18+84. pl.* *London.*

BERRY, EDWARD WILBER [1875–].
1929. Paleontology. *8vo. pp.12+392. illust. pl.* *New York.*

BERT, EDMUND.
1891. Treatise of hawks and hawking, for the first time reprinted from the original of 1619, with an introd. by J. E. Harting. *8vo. pp. vii+(1)+(16)+109. 1 fig. T. of c.* *London.*

A careful reprint of a very rare and curious old book, *An approved Treatise of Hawkes and Hawking.* Divided into three books. The first teacheth, How to make a short-winged Hawke good, with good conditions. The second, How to reclaime a Hawke from ill condition. The third, teacheth Cures for all Knowne diseases. One hundred copies only of the reprint were issued.

BERT, PAUL [1833–86].

1864. Catalogue méthodique des Animaux Vertébrés . . . de l'Yonne, etc. *8vo. pp. xxii, 129. 2 pl.* *Paris.*

BERTHELOT, SABIN [1794–1880].

1835–44. *See* WEBB AND BERTHELOT.

****, **BARKER-WEBB,** P., and **MOQUIN-TANDON,** A.

1841. Ornithologie canarienne. *See* BARKER-WEBB, P. and MOQUIN-TANDON, A.

1875–6. Oiseaux voyageurs et Poissons de Passage, étude comparée d'organisme, de mœurs et d'instinct. *2 vols. 8vo.* *Paris.*

The title describes this interesting work on comparative anatomy, by a distinguished French naturalist and traveler.

BERTHOUD, SAMUEL HENRY [1804–91].

1870. L'esprit des oiseaux. *8vo. pp. 371. 105 figs. index.* *Tours.*

The third edition of a very interesting and instructive discussion of the psychology of birds with many reports and tales bearing on the subject.

1875. Stories of Bird Life, etc. *8vo. 100 illust.*

BERTRAM, JAMES GLASS [1824–92].

1865. The harvest of the sea; a contribution to the natural and economic history of the British food fishes. *22 cm. xv, 519 pp. incl. front. 50 illust.* 'List of authorities', pp. 499–501. [O.] *London.*

BERTUCH, FRIEDRICH JUSTIN [1747–1822].

1806. Synoptische Enumeration der 2. Classe des Thierreichs, der Vögel. *4to. pp. [5]+14. 4 col. pl. T. of c.* (Tafeln der allgemeinen Naturgeschichte nach ihren drey Reichen.) *Weimar.*

A descriptive table of 158 species of birds, comprising five orders of land-birds and two of water-birds, with their habitat, zoological, local French and English names. The four colored plates with 24 well-made figures are entirely of parrots. The copy in hand is from the Cabanis library.

BERWICKSHIRE NATURALISTS' CLUB. *Alnwick.*

1831–*date.* History (and Proceedings).

BESCHÄFTIGUNGEN D. GESELLSCHAFT NATURFORSCHENDER FREUNDE, BERLIN. 1775–9. (All pub.) *See* GESELLSCHAFT . . . FREUNDE.

BESEKE, JOHANN MELCHIOR GOTTLIEB [1746–1802].

1792. Beytrag zur Naturgeschichte der Vögel Kurlands mit gemalten Kupfern; nebst einem Anhange über die Augenkapseln der Vögel. *12mo. pp. 92. 7 pl. (5 col.).* *Mitau.*

The rare first edition of this descriptive catalogue of the birds of Kurland, listing two new species. An appendix furnishes an accurate, illustrated description of the avian eyeball and of its various coverings.

BESSERER, L. VON.

1926. Unsere Raubvögel, etc. *8vo. 42 fig. München.*

BETTA, E. DE. *See* CORNALIA, E., 1870–74, *ed.*

BETTONI, EUGENIO.

1865–71. Storia naturale degli uccelli che nidificano in Lombardia ad illustrazione della raccolta ornitologica dei fratelli Ercole ed Ernesto Turati, scritta da Eugenio Bettoni; con tavole litografate e colorate prese dal vero da O[scar] Dressler. *3 vols. in 2. folio. 2 vols. text and 1 atlas. imp. folio.* Vols. I and II, *2 col. front. atlas. 120 col. pl. pref. pp. 16. text unpaged. indexes.* Milan, 1865–8–[71]. Issued in (?) 48 parts. Arrangement of plates vary in copies.

Of this rare work only 100 copies were issued, all to subscribers. An excellent account of this fine monograph appears in the *Journal f. Ornithol.*, p. 43, 1866, and p. 278, 1867. Ferdinando Sordelli contributes a discussion of the 'Fagiane acelimati in Lombardia' on the back of the first page of text accompanying pl. 57.

BEUDANT, FRANÇOIS SULPICE [1787–1852], and **others.**

1844. Populaere Naturgeschichte d. 3 Reiche, etc. *7 vols. 12mo.* *Stuttgart.*

First German edition—translation of the French original—an important treatise.

1848. Populaere Naturgeschichte d. 3 Reiche. 2te deutsche Aufl. *3 vols. 12mo.* *Stuttgart.*

BEWICK, JOHN. *See* BEWICK, THOS., 1870.

BEWICK, THOMAS [1753–1828].

1792. General History of Quadrupeds. *pp. 10+483. illust.* *Newcastle.*

This copy is of the third edition and exhibits many excellent examples of the famous writer's rare efficiency as a wood engraver.

**** and **BEILBY,** RALPH.

1797–1804. History of British birds. The figures engraved on wood. *2 vols. 8vo. 233 cuts of birds in the text. T. of c.* Vol. I, *pp. xxx+335+1.* Vol. II, *pp. xx+400.* *Newcastle.*

CONTENTS. Vol. 1. Land birds by Ralph Beilby. 2. Water birds by Thomas Bewick.

A copy of the rare first issue of the first edition as shown (Newton) by the absence of the words 'Wycliffe, 1791' from the figure of the Sea Eagle on p. 11 of vol. I. The text of the first volume was entirely written by Ralph Beilby; the illustrations are all by Bewick. It is as illustrator and artist that Bewick is best known, and mainly on account of his excellent woodcuts this work passed through numerous editions, a supplement (q.v.) being published by him in 1821. He also issued a number of small atlases of cuts without descriptive matter. The text in all the treatises bearing his name are mostly compilations from earlier writers.

1800. Figures of British land birds, engraved on wood; to which are added a few foreign birds with their vulgar and scientific names. *8vo. pp. (4)+266+(2). 250 figs. Newcastle-upon-Tyne.*

This printing contains the woodcuts without text, and at the end a leaf *with the indelicate vignette* (usually blacked out in the British Birds) in the original state. The cuts were printed from the same blocks as used for the British Birds 1797 (q.v.), whilst the figures of foreign birds (14 in number), which, Swainson says, 'not having been taken from the living specimens, are inferior to the others; they were intended for a general work on birds, a design afterwards abandoned'.

1800. Figures of British land birds . . . *8vo. pp. [4]+266. 249 figs.* *Newcastle-upon-Tyne.*

This copy differs from that of same date in the omission (at the end of the volume) of the 'indelicate' plate.

1800. A general history of quadrupeds. 4th ed. *4to. pp. 10+526. many woodcuts.* *Newcastle-upon-Tyne.*

One of many excellent examples of this famous illustrator's art. The Blacker Library has both the large paper and the usual format.

1809. A history of British birds; the figures engraved on wood. [3rd ed.] *2 vols. in 1. 8vo.* Vol. I, *pp. xlii+43–327+(1). 224 figs. T. of c.* Vol. II, *pp. xviii+19–360. 229 figs. T. of c.* *Newcastle.*

The third edition of this well-known *History of British Birds*, of which no less than six editions were issued in Bewick's lifetime.

[1815?]. A natural history of British birds; thirty-five engravings on wood. Printed and sold wholesale and retail by W. Davison. *18mo. pp. 36. 35 figs.* *Alnwick.*

This little volume contains a selection of woodcuts, with short descriptive text, from Bewick's larger history, and is found bound up with five similar little works on *British Quadrupeds, Foreign Birds, Foreign Quadrupeds, Fishes,* and on *Reptiles, Serpents and Insects.*

[1815?]. A natural history of foreign birds; thirty-four engravings on wood. Printed and sold wholesale and retail by W. Davison. *18mo. pp. 36. 34 figs. (incl. 1 on t.-p.).* *Alnwick.*

A companion book to the one entitled *A natural history of British Birds.*

ca. **1819.** Natural History of British Quadrupeds —Foreign Birds—Foreign Quadrupeds—British Birds—Fishes—Reptiles—Serpents—and Insects. *6 vols.* *Alnwick.*

The volume in hand forms a small library that furnishes excellent samples of Bewick's skill as a wood engraver.

1821. A history of British Birds, and Supplement. Letterpress: vol. 1 by R. Beilby, rev. by T. Bewick.

CONTENTS. Vol. I. History and description of land birds, and Supplement.
Vol. I. 1821. *pp. xl+43–330. 206 cuts.*
Part I. 1821. A Supplement to the *History of British Birds,* containing the History and Description of Land Birds. *pp. 50. index. many text cuts and tail-pieces.*

The fifth edition of this British classic. Vol. II, bound with a supplement. *See* COTES, H.

1821. The figures of a supplement to the British birds. Vol. 1, *20 pl. (land birds). 1 fig.* Vol. 2, *18 pl. (water birds). 1 fig.* *Newcastle.*

A series of 38 figures (engraved on wood) of land and water birds issued as one of the supplements to Bewick's *History of British Birds,* published in 1797–1804.

1824. General History of Quadrupeds. *Newcastle.*

The eighth edition of this classic treatise.

[? **1827**]. [Bewick's Natural History Chap Books.] Printed by W. Davison. *Alnwick.*

Seven *12mo* tractates describing corresponding woodcuts of varied animal life. They resemble the artist's vignettes, arranged for sale as popular pocket pamphlets. They must be exceedingly rare as they are not listed in any catalogue examined by the Compiler.

1832. A history of British birds. [7th ed.] *2 vols. 8vo.* Vol. I, *pp. xl+386. 332 figs. T. of c.* Vol. II. *pp. xxii+424. 307 figs. T. of c.* *Newcastle.*

In this seventh edition are included 14 extra cuts of foreign birds. These latter appear in the eighth and last editions as an appendix, pp. i–xi.

1847. History of British birds. [8th ed.] *2 vols. 8vo.* Vol. I, *pp. (2)+xxxix+(1)+xxxvi+374. 325 figs. T. of c.* Vol. II, *pp. xxiii+(1)+406+(2)+xi. 321 figs. T. of c. append.* *Newcastle.*

The eighth and last edition of this British classic was edited by John Hancock, and is in many respects the best. It contains some 20 extra tail-pieces, which Bewick had executed for a projected History of British Fishes; also 14 additional cuts of foreign birds which appear in the Appendix at the end of vol. II, pp. i–xi.

1860. Wood engravings of land and water birds. Never before published. *114 figs. on 57 pl.* *Newcastle-on-Tyne.*

This collection of wood engravings (from the Sclater collection) by Bewick is not included in the artist's works although some of them are probably prints from the wood blocks used to illustrate his *British Birds.* Many of the figures are identified by penciled notes. The volume is certainly rare.

****, **BEWICK,** JOHN and **HUGO,** THOS.
1870. Bewick's woodcuts: impressions of upwards of two thousand wood-blocks, engraved, for the most part, by Thomas and John Bewick, of Newcastle-on-Tyne. Including illustrations of various kinds for books, pamphlets, and broadsides; cuts for private gentlemen, public companies, clubs, exhibitions, races, newspapers, shop cards, invoice heads, bar bills, &c. With an introduction, a descriptive catalogue of the blocks, and a list of the books and pamphlets illustrated. By Thomas Hugo, the owner of the collection. *demy folio. pp. vii+(3)+28. front. (portr.). 2009 figs. T. of c.* *London.*

A very rare volume of 'Impressions of the unrivalled collection of wood blocks of these two artists owned by Thomas Hugo'. It is not pretended that every single cut in this volume is the work of Thomas or John Bewick, some few of them being by Lee, Harvey, Clennell, and other favorite pupils.

1885–7. Works. Memorial edition. *8vo.* Vol. I, *pp. (2)+xxxix+(1)+xxxvi+(2)+374. 325 figs. T. of c.* Vol. II, *pp. xxiii+(1)+406+(2)+xi. 321 figs. T. of c. append.* Vol. III, Quadrupeds. Vol. IV, Fables of Æsop. Vol. V, Memoir and 17 cuts of fishes. *Newcastle-upon-Tyne*

Vols. I and II, *History of British Birds,* are a reprint of the 8th edition of 1847, which contains some 20 extra tail-species (not published before) that Bewick had executed for a projected History of British Fishes, and also 14 additional woodcuts of foreign birds, which latter appear in the Appendix at the end of vol. II, pp. i–xi. Only 750 copies of this edition were printed.

**** **BOYD, JULIA,** *ed.*
1886. Bewick gleanings; being impressions from copperplates and wood blocks, engraved in the Bewick workshop; ed. with notes by Julia Boyd, to which are added lives of Thomas Bewick and his pupils. With impressions from other wood blocks collected by or lent to the author. *4to. pp. xxiv+(2)+108+(2)+104. front. vignette. 56 pl. 363 figs. 2 indexes.* *Newcastle-upon-Tyne.*

A permanent record of the 'aftermath' of that remarkable workshop wherein was wrought so much interesting work at the end of the eighteenth and beginning of the nineteenth centuries. In this collection birds are not nearly so well represented as mammals. The present copy is No. 8 of the large paper edition.

BEWICK COLLECTOR. *See* HUGO, THOS.

BEYER, E.
1894. Verbreitete Tierformen d. Arktisch. Region in Europa in Diluvium-Zeit. *Marburg.*

BEXON, G. L. C. A. *See* BUFFON and others, 1749–1804.

BIANCHI, VALENTĪN L'VOVĪCH [1857–].
1906. Catalogue of the known species of Alaudidae or family of larks, with a table showing the geographical distribution and a key to the genera. *4to. pp. 96+(2). 2 indexes.* *St. Petersburg.*

This author's separate forms portion of a scheme for completing the account of the important collections of birds made by Prjevalski during his four celebrated expeditions in Central Asia. The first three parts were prepared by Pleske (*Ibis,* 1890, p. 256, and 1895, p. 286). Since 1894 no further instalments were forthcoming until 1905, when the fourth part appeared by Prof. Bianchi. The text was written in Russian and German. The present catalogue, written in English, is part of the larger work.

1911. Oiseaux (Aves). *sm. 4to. pp. [2]+384+1.* Vol. 1, pt. I. *vii pl.* (Faune de la Russie et des pays limitrophes.) *St. Petersbourg.*

This work, apart from its description of the two orders mentioned, is valuable for the extensive bibliography it furnishes.

BIANCONI, Giovanni Giuseppe [1809–78].
1847–67. Specimina Zoologica Mosambicana, etc. *4to.* *Bononiae.*

1853–4. Repertorio Italiano per la Storia naturale. *2 vols. 8vo.* *Bononiae.*

BIANKI, V. L. *See* BIANCHI, V. L.

BIART, L.
1872. Adventures of a Young Naturalist. Ed. by P. Gillmore. *117 illust.* *New York.*

BIBLIOGRAPHIA ZOOLOGICA. 1896–*date*.
Compiled under H. H. Field as part of the famous *Concilium bibliographicum*, Zürich.
It was also published separately and in book form as a supplement to the *Zoologischer Anzeiger* (q.v.). It is one of the indispensables.

BIBLIOGRAPHICAL SOCIETY OF AMERICA.
1919. Census of Fifteenth Century Books owned in America. *pp. 245.* *N.Y.*
A most useful work of reference to locally owned incunabula.

BIBLIOGRAPHIE DER DEUTSCHEN NATURWISSENSCHAFTLICHEN LITTERATUR. 1901–14. *Jena, Berlin.*

1905–*date*. In 3 parts. Pt. 2 Paläontologie, Biologie, etc.

BIBLIOGRAPHIE DES SCIENCES NATURELLES. 1880–91? *Paris.*

BIBLIOGRAPHIE SCIENTIFIQUE FRANÇAISE. 1902. *Paris.*

1903–*date*. In two parts. Pt. 2 Sciences Naturelles et Biologiques.

BIBLIOGRAPHIE DES TRAVAUX SCIENTIFIQUES, SCIENCES MATHÉMATIQUES, PHYSIQUES ET NATURELLES. 1895–*date*. *Paris.*

BIBLIOGRAPHISCHE ZEITSCHRIFT FÜR NATURWISSENSCHAFTEN UND MATHEMATIK. 1900–7. *Berlin.*

BIBLIOTECA NAZIONALE CENTRALE DI FIRENZE. 1886–1900. *Firenze.*

BIBLIOTECA DELLA ZOOLOGIA ED ANATOMIA COMPARATA IN ITALIA. 1878–80. *Turin.*

BIBLIOTHECA HISTORICO-NATURALIS. *Leipzig.*
1700–1846. Continued as *Bibliotheca Zoologica.*

BIBLIOTHECA HISTORICO-NATURALIS, PHYSICO-CHEMICA ET MATHEMATICA. 1751–78. *Göttingen.*

BIBLIOTHECA HISTORICO-NATURALIS ET ZOOLOGICA I ET II. (3 Abt.) bearb. v. W. Engelmann, J. V. Carus u. O. Taschenberg.
1846–1930. I. Engelmann, W., Verzeichnis d. Bücher über Naturgeschichte 1700–1846. 1. (einziger) Bd. 1846.—II. Carus, J. V. u W. Engelmann, Bibliotheca zoologica (I). Verzeichnis d. Schriften über Zoologie 1846–60. 2 Bde.—III. Taschenberg, O., Bibliotheca zoologica II. Verzeichnis d. Schriften über Zoologie 1861–80. 8 Bde. (Bd. 7 in 2 Hälften.) 1887–1923. *Leipzig.*
A most useful work of reference for both student and librarian, comprising titles of zoological literature from 1700 to date.

BIBLIOTHECA ZOOLOGICA.
1861–1923. Bibl. of 1846–60 by J. V. Carus and W. Engelmann. *2 vols.* Bibliotheca Zoologica II, for 1861–80, by O. Taschenberg. 1887–1923. *8 vols.* *Leipzig.*
Continuation of *Bibliotheca historico-naturalis*, etc. (q.v.). *See also* Engelmann, W.

BIBLIOTHEK FÜR AQUARIEN- UND TERRARIENKUNDE. 1907–*date*. *Brunswick.*

BIBLIOTHEK DER GESAMMTEN NATURGESCHICHTE. 1789–91. *Frankfurt-a-M.*

BIBLIOTHEK DER NATURWISSENSCHAFTEN NEUESTER ZEIT. 1836–8? *Leipzig.*

BIBLIOTHÈQUE UNIVERSELLE. (Archives des Sciences Physiques et Naturelles.) *Geneva, Lausanne.*

1846–57. Series 1.

1858–78. „ 2.

1878–95. „ 3.

1896–1918. Series 4.

1919–*date*. Series 5.

BIBRON, Gabriel [1806–48]. *See* Bory de Saint-Vincent, 1832–6.

1835–47. *See* Voyages, French. Voyage dans l'amérique méridionale.

1839–61. *See* Sagra, Ramon de la.

1840–66. *See* Voyages, French. Voyage autour du monde . . . sur la Bonite.

1847. Reptiles. *folio. pp. 12* (*in* Orbigny, A. [D.] d'. 1802–57. Voyage dans l'Amérique méridionale, 1826–33. Vol. 5, pt. 1). *Paris.*
Author's separate.

BICKERTON, W.
1912. The home-life of the terns or sea swallows. *8vo. pp. 88+(4)+16 ll. 32 pl.* (*37 figs.*). *T. of c.* *London.*
Interesting accounts of the home-life of the five terns breeding in the British Isles, the Sandwich, Common, Lesser or Little, Roseate and Arctic Terns, a companion volume to *The Home-life of the Spoonbill*, 1910, by Bentley Beetham.

1925. The natural history of Hertfordshire. *See* Wilmore, A.

BIDRAG TILL FINLANDS NATURKÄNNEDOM, ETNOGRAPHI OCH STATISTIK. 1857–64. *Helsingfors.*

BIDRAG TILL KÄNNEDOM AF FINLANDS NATUR OCH FOLK. 1858–*date*. *Helsingfors.*

BIELEFELD.
1908–*date*. Naturwissenschaftl. Verein f. Bielefeld u. Umgegend. Bericht.

BIELZ, EDUARD ALBERT [1826?–98].
1856. Fauna ver Wirbelthiere Siebenbürgens, etc. *8vo. pp. 6+200.* *Hermannstadt.*

BIGGE, G. R.
1846. Catalogue of British Birds, etc. *8vo.* *Durham.*
This consists of labels for use in cataloguing specimens.

BIGNON, FANNY.
1889. Contribution à l'étude de la pneumaticité chez les oiseaux. *8vo. pp. 67+(1). 4 pl.* *Lille.*
A Paris University thesis on the air sacs of birds.

BIGSBY, JOHN JEREMIAH [1792–1881].
1868. Thesaurus siluricus. The flora and fauna of the Silurian period. *4to. pp. 56+214. front. (map).* *London.*

1878. Thesaurus devonico-carboniferus. The flora and fauna of the Devonian and Carboniferous periods. The genera and species arranged in tabular form, showing their horizons, recurrences, localities, and other facts. *28 cm. pp. 448. fold. tab., diagr.* *London.*

BIJDRAGEN TOT DE DIERKUNDE. (K. Zoölogisch genootschap 'Natura Artis Magistra'.) **1848–*date.*** *Amsterdam.*
A most important zoological periodical, the organ of a large and active Dutch society devoted to natural history.

BIJDRAGEN TOT DE NATUURKUNDIGE WETENSCHAPPEN. **1826–32.** *Amsterdam.*

BIJDRAGEN TOT DE TAAL- EN VOLKENKUNDE NEERLANDSCH INDIË. **1852–*date.*** *The Hague.*

BILDER AUS DER GESCHICHTE DER BIOLOGISCHEN GRUNDPROBLEME. (Wanting.) *Berlin.*

BILHARZ, THEODOR.
1857. Das electrische Organ des Zitterwelses anatomisch beschrieben. *folio. pp. 6+52. 4 pl.* *Leipzig.*

BILLBERG, GUSTAV JOHAN [1772–].
1806–9. *See* PALMSTRUCH, JOHAN WILHELM.
1827. Synopsis Faunae Scandinaviae. *12mo.* *Holmiae.*

BINGEN, HEILIGE HILDEGARDE VON.
For her description and depiction of bird-life in the Middle Ages, *see* SINGER, CHARLES, 1917–21.

BINGHAM, H. C.
1922. Visual perception of the Chick. (Behavior Monograph 20.) *Baltimore.*
Author's separate.

BINGLEY, *Rev.* WILLIAM [1774–1823].
1804. Animal biography; or, Authentic anecdotes of the lives, manners, and economy of the animal creation. Arranged according to the system of Linnæus. In three volumes. 2nd ed., with considerable additions and corrections. *3 vols. 8vo.* Vol. I, *pp. xxiii+(1)+504+(8). front. (fold.). bibliogr. append. 2 indexes.* Vol. II, *pp. (2)+554. 2 indexes.* Vol. III, *pp. (2)+580. 2 indexes.* *London.*
A popular compilation, with additions and corrections to the first edition of 1802–3.

1809. Memoirs of British Quadrupeds, etc. (A synopsis of British Quadrupeds.) *8vo. pp. 12+459+80. 74 col. pl.* *London.*
A semi-popular work, illustrated by Samuel Howitt, by a naturalist that wrote several books, in the same style, on faunal and floral subjects.

1813. Animal biography; or, Popular zoology. With an addition of more than one hundred and forty species. 4th ed. *3 vols. 8vo.* Vol. I, *pp. xxxix+(1)+520. bibliogr. index.* Vol. II, *pp. (2)+466.* Vol. III, *pp. (2)+495.* *London.*
The present edition has been corrected throughout and at least one-third of the whole rewritten. A sixth edition in 4 volumes was issued in 1824.

[? **1870**]. The history of birds; their varieties and oddities comprising graphic descriptions of nearly all known species, etc. *8vo. pp. 526. illust. index.* *Chicago.*
A badly printed, crudely illustrated 'with over 500 spirited illustrations', and a more or less accurate description of animals written in familiar style.

BINNEY, GEORGE [1900–].
[**1925**]. With seaplane and sledge in the Arctic, with a preface by W. J. Sollas. 40 pages of illust. *8vo. pp. 287. front. 39 pl. 1 map (fold.). T. of c. 10 append. index.* *London.*
An interesting account of the Oxford University Arctic Expedition of 1924. Eighteen species of birds are mentioned with three illustrations.

BIOLOGIA CENTRALI-AMERICANA.
1879–82. Zoology, botany, and archaeology. Ed. by F. D. Godman . . . and O. Salvin . . . Introductory volume. *See* GODMAN, F. D. and SALVIN, O.

1904. Biologia centrali-americana. Mammalia, by E. R. Alston, with an introd. by P. L. Sclater. *folio. pp. 20+220. pl. See* GODMAN, F. D. and SALVIN, O.
Author's reprint.

BIOLOGIA GENERALIS. International journal of general biology.
1925–8. Archives internationales de biologie générale. Internationale Zeitschrift für allgemeine Biologie. Archivio internazionale di biologia generale . . . vols. 1–4. *Vienna.*

BIOLOGICA HUNGARICA. BUDAPEST.
1923. Vol. I, pts. 1–7 (all pub.).

BIOLOGICAL ABSTRACTS.
1927–*date.* Publication Office, Menasha, Wisconsin.

BIOLOGICAL BULLETIN. *Boston.*
1898–*date.* Continues Zoological Bulletin.

BIOLOGICAL MONOGRAPHS AND MANUALS. Animal genetics; an introduction to the science of animal breeding. *See* CREW, FRANCIS ALBERT ELEY.

BIOLOGICAL SOCIETY OF WASHINGTON.
1918. Bulletin.
1880–*date.* Proceedings. *See* PROCEEDINGS OF THE BIOLOGICAL SOCIETY OF WASHINGTON.

BIOLOGISCHE ANSTALT AUF HELGOLAND. *See* WISSENSCHAFTLICHE MEERESUNTERSUCHUNGEN. *Helgoland.*

BIOLOGISCHE NATURKUNDE. *See* ARCHIV FÜR DIE NATURKUNDE EESTIS.

BIOLOGISCHE STATION ZU PLÖN. *See* ARCHIV FÜR HYDROBIOLOGIE UND PLANKTONKUNDE.

BIOLOGISCHES ZENTRALBLATT. 1881–*date.* *Erlangen, Leipzig.*

BIOLOGISCHE UNTERSUCHUNGEN. 1881–2. (*Retzius.*) *Stockholm.*

1890–1921. New series.

BIOLOGIST. 1916–*date.* *Mesa, Colo.*

BIOMETRIKA. 1901–*date.* *Cambridge, Eng.*

BIRCHLEY, SUMNER W.

1909. British birds for cages, aviaries, and exhibitions. *2 vols. 8vo.* Vol. 1, *pp. xiv+302. front. 43 pl. T. of c.* Vol. 2, *pp. viii+234. front. 27 pl. 23 sect. plans. T. of c.* *London.*

A popular account of British birds suitable for cage purposes, with instructions for dealing with their general diseases and ailments.

BIRD-BANDING.

1930. A journal of ornithological investigation [quarterly]. January 1930. Continuation of the Northeastern bird-banding association. Bulletin. *Boston.*

BIRD BANDING NOTES.

1922–*date.* Issued by the Bureau of Biological Survey, Washington, D.C. E. W. Nelson, Director. Mimeographed. Issued irregularly; recently every month from April 15, 1922–*date.* Nos. I–XII. *pp. various (9–15).*

Although the Director deprecates listing this useful circular as a 'periodical' yet it comes well within the definition adopted by the Compiler, and he is glad to draw attention to its extreme value as a record of work done in bird banding, not only in the United States but abroad. Moreover, there are a number of articles on the subject, by specialists, local lists of Bird Banding Societies, outline maps, etc., well worthy of inspection by those engaged or interested in this important activity.

BIRD CALL, THE.

1887. (All pub.) Monthly. *4to.*

The Compiler is indebted to Dr. Witmer Stone for the following notes on the rare periodical: 'So far as I know, only six numbers (January to June) were published in Philadelphia by the original Pennsylvania Audubon Society in 1887. They had no cover, the title being printed across the top of the first page, and they covered eight pages, each, the last page being devoted to advertisements.
'The subject-matter was almost entirely quotations from other journals, largely those of the Society for Prevention of Cruelty to Animals.
'I am not sure who was the Editor, as no name is given, but I think the late Mrs. Brinton Coxe was the responsible one.'

BIRD CLUB OF PRINCETON UNIVERSITY.

September 1901. Bulletin. 1, no. 1. *8vo. pp. 62.* *Princeton, N.J.*

The first number (probably all issued) contains a list of the officers and club membership, and a paper on the Birds of Princeton, New Jersey, and vicinity, by W. A. Babdon. The announcement is made that the Club 'will issue further bulletins as the accumulation or importance of original matter may warrant'.

(THE) BIRD FANCIER'S NECESSARY COMPANION AND SURE GUIDE.

1762. *See* ANONYMOUS, Bird Fancier's necessary companion.

(THE) BIRD FANCIER'S RECREATION, &c.

1728. *See* ANONYMOUS, Bird Fancier's recreation.

BIRDLAND; THE NATURE STUDY BOOK. *c.* **1914.** *See* ANONYMOUS, Birdland.

BIRD-LORE. An illustrated bi-monthly Magazine devoted to the study and protection of Birds. Englewood, N.J. and N.Y. City. Edited by Frank M. Chapman, N.Y. Published by The MacMillan Co. *illust.* Official organ of the Audubon Societies. Audubon Department edited by Mabel Osgood Wright. Bi-monthly. *col. pictured wrappers.*

1898–*date.* Vols. 1– . *8vo. T. of c.*

To this important American periodical, the organ of many flourishing Audubon Societies, a large number of the best known New World ornithologists have contributed articles, generally well illustrated and of scientific merit. While most of these papers discuss local bird study, cultivation, and protection, yet many are original contributions on foreign birds. The magazine has an excellent department in which current avian journals are noticed. All in all, it is by far the best periodical of its class in any language.

BIRD-LOVER, THE.

1914. An occasional Paper. Pub. by the Selborne Society Bird Sanctuary Committee, The Hermitage, London, Hanwell, W. *8vo. illust.* Vol. 1, No. 1 (all issued). No. 1, issued March 1914. *pp. 24. 8 illust. in black.* *London.*

This magazine was published in the interest of bird sanctuaries in general and of the Selborne Society's Brent Valley Sanctuary in particular. It is to be hoped that such a philanthropic publication (interrupted by war conditions) may be resumed in the near future.

BIRD NEWS.

1909. Published by the Avicultural Society of California. Devoted to the Interests of the Bird Fancier. Frederick W. D'Evelyn, Editor; W. W. Cooley, Business Manager. Bi-monthly. *8vo. pictured title-page.* Vol. I. 1909. Nos. 1–6, Jan.–Dec. *64 pp.* (All issued.) *San Francisco.*

F. L. Burns gives the date 1901; the *Auk*, 1900.

BIRD NOTES. / Being the Journal of / The Foreign Bird Club / and the / National British Bird / and Mule Club. Monthly.

1901–25. Many black and colored illustrations. Divided into Series 1 (1901–9); Series 2 (1910–17); Series 3 (1918–25).
Vols. IV–VII, 1921–5, when pub. ceased after amalgamation with the Avicultural Society (q.v.).

Bird Notes combines the attractions of a practical, popular journal, with the qualities of a scientific publication. Among its contributors and collaborators are the names of many ornithologists of rank. The construction and conduct of private aviaries and the breeding of foreign and domestic avifauna in captivity—of considerable importance from several standpoints—are fully discussed and depicted in its pages. It is also refreshing to note in this periodical the gradual improvement and enlargement of the format and wrappers from small beginnings to the dignity of a first-rate magazine and its continuation in size and contents, instead of the opposite state of affairs, too frequently observed in other periodicals. Under the title *Bird Market* trade reports on foreign cage birds are appended to each number, forming a second supplement for the use of members of the Club. These have not been separately issued although the former title is occasionally referred to as if it were a distinct publication.

BIRD NOTES AND NEWS. A circular Letter Addressed to Members and Friends of the Royal Society for the Protection of Birds and to all interested in Bird Protection. London. Published at the office of the Royal Society for the Protection of Birds, 3 Hanover Sq.

1903. *large 8vo. illust. T. of c. and indexes.* First vol. 12 nos.; remainder 8 nos. Tinted covers since 1906.

In addition to the publication of this well-edited periodical, organ of a Society doing admirable work in the British Empire, the Society publishes many leaflets on such important topics as 'The Plume Trade', 'Bird and Tree Day', 'Bird Sanctuaries', etc., and endeavors

to encourage public education on the subject of Bird Protection, Bird Culture, and the advocacy of the rights of animals. The Membership of the Society and contributors to its organ include many prominent ornithologists, embracing such men as the late W. H. Hudson, who are in sympathy with and take part in the activities of the Society.
The present Secretary of the Society and the principal contributor to the columns of this magazine is Miss L. Gardiner, Victoria St., London, S.W. 1.

BIRDS; a monthly serial illustrated by color photography, designed to promote knowledge of bird-life. *See* BIRDS AND NATURE MAGAZINE.

BIRDS. Religious Tract Society.
1842. *12mo.* *London.*

BIRDS AND ALL NATURE IN NATURAL COLORS; a monthly serial illustrated by color photography. **1914–19.** *See* BIRDS AND NATURE MAGAZINE.

BIRDS AND NATURE MAGAZINE.
1896?–1907. 1–[21], January 1897–June 1907. *roy. 8vo.* *Chicago.*
Monthly 1897–8; monthly except July–Aug. 1899–1907. 2 volumes yearly.
Publishers: Nature Study Publishing Co.
Editors: July 1898–May 1900, C. C. Marble; Sept. 1900–June 1906, W. E. Higley.
Volume numbering irregular. Vols. 17–19 called (on t.-p. only) 'vols. 1–3'; vol. 20 called 'vol. 4'; vol. 21, nos. 1–3, called 'vol. 5, nos. 1–3'; vol. 21, nos. 4, 5, called 'vol. 1, no. 1, 2, old ser., vol. 20, nos. 4, 5'.
Vols. 1–2 (Jan.–Dec. 1897) title reads: Birds illustrated by color photography; a monthly serial designed to promote knowledge of bird-life.
Vol. 3 (Jan.–June 1898) title reads: Birds; a monthly serial illustrated by color photography designed to promote knowledge of bird-life.
Vol. 4 (July–Dec. 1898) title reads: Birds and all nature in natural colors; a monthly serial illustrated by color photography.
Vol. 5 (Jan.–May 1899) title reads: Birds and all nature in natural colors; a monthly serial, forty illustrations by color photography, a guide to the study of bird-life.
Vols. 6–7 (June 1899–May 1900) title reads: Birds and all nature in natural colors; a monthly serial, forty illustrations by color photography, a guide to the study of nature.
Vol. 8, no. 1 (June 1900) title reads: Nature and art illustrated by color photography.
Vol. 8, nos. 2–[21], no. 4 (Sept. 1900–April 1907) title reads: Birds and nature in natural colors.
Vol. 8, nos. 5–6 (May–June 1907) title reads: Birds and nature magazine.
In many ways this periodical served to arouse interest in popular ornithology—bird protection in particular—and its colored illustrations were widely sold as separate publications. It suspended publication during the World War. Continued as *Nature and Art.*

BIRDS I HAVE SEEN.
1905. *See* ANONYMOUS, Birds I have seen.

BIRDS OF THE STONEYHURST DISTRICT.
1888. *See* ANONYMOUS, Birds of the Stoneyhurst district.

BIRD WORLD MAGAZINE.
1906–7. December 1906–November 1907. (All pub.) *8vo.* Colored frontispiece and tinted (colored) pictured wrappers. A popular magazine issued by F. Carl, 154 Fleet St., London, E.C. *London.*
It seems a pity that this attractive, well-edited, and useful journal, devoted to popular ornithology, should have such a brief career. It presents many practical, well illustrated articles on wild, as well as on domesticated birds. It was merged with *Cage birds,* to form: *Cage birds and bird world.*

BIRMINGHAM NATURAL HISTORY AND MICROSCOPICAL SOCIETY.
1864–72. Annual Reports. United with Birmingham Philosophical Society to form Birmingham Natural History and Phil. Soc.

BIRMINGHAM NATURAL HISTORY AND PHILOSOPHICAL SOCIETY. *Birmingham.*
1894–*date.* Annual Report.
1894–7. Journal.
1876–*date.* Proceedings.

BIRMINGHAM NATURALISTS' GAZETTE.
1882–3. Nos. 1–7 (all pub.).

BIRMINGHAM PHILOSOPHICAL SOCIETY. *See* BIRMINGHAM NATURAL HISTORY AND PHILOSOPHICAL SOCIETY.

BĪRULA, ALEXANDER [BYALUINĪTZKIĬ-BIRULYA, ALEKSANDR ANDREEVICH].
1907. Esquisse de la vie des oiseaux dans le littoral polaire de la Sibérie. *folio. pp. [4]+36+157. 8 pl. 23 figs. in text. T. of c. index.* (Académie impériale des sci. de St. Pétersbourg. Mémoires. Sér. 8, vol. 18, no. 2.) In Russian. T.-p. in Russian and French on reverse of cover. *St. Pétersbourg.*
A repaged excerpt on the shore birds of Northern Siberia observed during the Russian Polar Expedition, 1900–3. The monograph forms Part II of vol. I, Section E, Zoology. The other monographs in this section are devoted to certain fishes and a few invertebrates.

BISCHOFF, G. W. and **others.** *See* LEUCKART, F. S., 1832.

BISHOP, LOUIS BENNETT [1865–].
1900. Annotated list of Birds of the Yukon Region. *pp. 50. index.*

****, **SANFORD,** L. C., and **VAN DYKE,** T. S.
1903. The water-fowl family.

****, **SAGE,** J. H., and **BLISS,** W. P.
1913. The birds of Connecticut, &c. *See* SAGE, J. H. and BLISS, W. P.

BITTERN, THE.
1890–1. (All pub.) October 1890–December 1891. Editor and publisher, H. E. Berry. Printed by the News Publishing Co., J. F. Aldis, manager. The second volume was issued by C. W. Hillman, Canisteo, N.Y. Merged into the Empire state naturalist. *Damariscotta, Maine—Canisteo, N.Y.*

1900–1. 1, nos. 1–4, June 1900–January 1901. *8vo, 12vo.* Editor and publisher, Glen M. Hathorn. Continuation of: Western ornithologist, 1894–1900 (*formerly* the Iowa ornithologist). *Cedar Rapids, Ia.*
This interesting periodical contains with other matters papers by the editor (G. M. Hathorn), Morris Gibbs, H. E. Bishop, and William Rolfe.

BLAAUW, FRANS ERNST [1860–].

1897. A monograph of the cranes. Illust. by 22 col. pl. by Heinrich Leutemann and J. G. Keulemans. *pp. viii+64. 22 pl. (col., 2 eggs). 13 figs. index.* *Leyden and London.*

Only 170 copies were printed, of which the present one is No. 88—a fine, systematic treatise beautifully illustrated.

BLACK, W. T.

1901. The Fish River Bush, South Africa, and its wild animals. *8vo. pp. 55. front. 5 pl. T. of c. bibliogr.* *Edinburgh.*

Author's excerpt from the *Edinburgh New Philosophical Journal* of July and October 1853.

BLACKBURN, *Mrs.* HUGH.

1862. Birds drawn from nature. *folio. pp. 2+6. 22 pl. T. of c.* *Edinburgh.*

A series of spirited drawings of Scotch birds. Twenty-three additional plates were prepared for a second (1868) edition, which are, with a number from this volume, included in the author's *Birds from Moidart and elsewhere.*

1868. Birds Drawn from Nature. 2nd ed. *Edinburgh.*

1895. Birds from Moidart and elsewhere; drawn from nature by J. B. *8vo. pp. viii+191. front. 87 pl. T. of c.* *Edinburgh.*

Uncolored lithographs of birds, mostly from Moidart, Inverness-shire, Scotland, accompanied by notes and anecdotes of the various species. Some of the plates were published originally in the author's folio, *Birds drawn from nature*, 1862.

BLACKER, *Maj.* LATHAM C. M.

1901. A history of the family of Blacker of Carrickblacker in Ireland. *8vo. pp. 50+8. tab.* *Dublin.*

BLACKWALL, JOHN [1790–1881].

1873. Researches in zoology, illustrative of the structure, habits and economy of animals. 2nd ed. *8vo. pp. viii+343. 2 pl. T. of c. index.* *London.*

First published in 1834. The portion relating to birds will be found on pp. 1–183.

BLAGRAVE, J.

1685. The Epitome of the Art of Husbandry, etc.

BLAINVILLE, H. M. D. DE [1777–1850]. *See* VIEILLOT and others, 1820–30.

1839–64. Ostéographie, ou description iconographique comparée du squelette et du système dentaire des Mammifères récents et fossiles. *4 vols. 4to. atlas.* *Paris.*

The title-page originally issued with Tom. 1 differs somewhat from the above. For note by C. Davies Sherborn on the dates of publication of the parts of this work, see *Ann. and Mag. Nat. Hist.*, Ser. VII (1898), p. 76.

1840–46. *See* VOYAGES, FRENCH. VOYAGE AUTOUR DU MONDE . . . SUR LA BONITE.

BLAIR, FRANCIS G.

1921. Illinois arbor and bird days. Friday, April fifteenth; Friday, October twenty-first. Circular no. 151. *8vo. pp. 68. 61 figs.*

Two days upon which the local authorities may designate suitable exercises to be held to accentuate and emphasize the importance of the propagation of trees, shrubs, and vines, and the preservation of native bird life. The text and illustrations are designed to arouse and maintain a healthful interest in outdoor life, in building boxes for birds, in feeding and protecting them, in trees and their care, in wild flowers.

BLAIR, WILLIAM REID [1875–].

1929. In the zoo; representing twenty-seven years of observation and study of the animals in the New York zoological park. *8vo. pp. 12+195. pl.* *New York.*

BLAKE, CHARLES CARTER.

1875. Zoology for students, a handbook; with a preface by Richard Owen. *8vo. pp. xv+(1)+382. 110 figs. T. of c.* *London.*

A series of lectures delivered to students of Comparative Anatomy at Westminster Hospital since 1869.

BLAKE, F. G. and M. C.

1903. Williamstown's Birds. Newspaper Cuttings.

BLAKE, IRVING HILL [1888–].

1927. A comparison of the animal communities of coniferous and deciduous forests. *4to. pp. 148. pl. diagr. map.* (Illinois University theses.) *Urbana.*

BLAKISTON, THOMAS WRIGHT, and **PREYER,** T. W.

1882. Birds of Japan. *London.*

A rather rare and important treatise.

1884. Amended list of the birds of Japan, according to geographical distribution; with notes concerning additions and corrections since January 1882. *8vo. pp. 68.* *London.*

This privately printed and rather scarce work forms a useful contribution to a study of Japanese avifauna. 351 species are described or listed, either as indigenous or migratory varieties, and their geographical distribution is carefully tabled. The present copy is from P. L. Sclater's library.

BLAKSTON, W. A. and **others.**

1877–80]. The illustrated book of canaries and cage-birds, British and foreign. *4to. pp. viii+448. front. (col.). 55 pl. (col.). 92 figs. T. of c. index.* *London.*

An important work on Cage-Birds divided into three main divisions: (1) Canaries, pp. 1–297, by Blakston; (2) British Cage-Birds, pp. 298–344, by Swaysland; and Foreign Cage-Birds, pp. 345–444, by Wiener.

BLANC, ALPHONSE.

1848. Leçons de zoologie générale pour servir d'introduction à l'étude de l'ornithologie; pub. sous les auspices de M. Isidore Geoffroy-Saint-Hilaire. *8vo. pp. [2]+133.* (Muséum d'histoire naturelle.) *Paris.*

The title indicates the character of this work, a well-considered review of ornithology especially in the light of the works and opinions of Geoffroy-Saint-Hilaire, whose contribution, under the caption 'Cours d'Ornithologie', it really is. From the Godman library.

BLANC, HENRI.

1907. Louis Agassiz, ses travaux en zoologie et en paléontologie. *4to. pp. 26.* Author's reprint, *Bulletin de la Société vaudoise des sciences naturelles*, 1907. *Lausanne.*

BLANCHAN, *Mrs.* NELTJE (DOUBLEDAY, *Mrs.* NELTJE). *See* DOUBLEDAY, *Mrs.* NELTJE.

1901. Bird Neighbors. *New York.*

1902. How to attract the birds, and other talks about bird neighbors. *Toronto.*

1904. Birds that Hunt and are Hunted.

n.d. Nature's Garden.

One of the many popular books on natural history by this gifted authoress. *See* DOUBLEDAY, *Mrs.* NELTJE.

BLANCHARD, CHARLES ÉMILE [1819–1900].

1841–54. *See* VOYAGES, FRENCH. VOYAGE AU PÔLE SUD.

1857. Iconographie des perroquets, etc. *See* SOUANCÉ, CHARLES DE.

[1859]. Recherches sur les caractères ostéologiques des oiseaux appliquées à la classification naturelle de ces animaux. *8vo. pp. 128.*

Originally contributed to *Annales des Sciences Naturelles*, Zoologie, Sér. 4, t. 11, pp. 11–145, and continuation. The separate title is not found in any ordinary catalogue. It is a companion to another essay on the structure of the sternum in birds, illustrated by four plates. Criticizes Lherminier's study of the sternal apparatus of birds.

1866. Les poissons des eaux douces de la France. *151 figs.* *Paris.*

By an authority of acknowledged excellence on French freshwater fishes.

BLANCHARD, FRANK N.

1921. A Revision of the King Snakes; Genus Lampropeltis. *8vo. pp. vi+260.* *Washington.*

1924. A Key to the Snakes of the United States, Canada and Lower California. *pp. 13+65.* (*Papers Michigan Acad.*, vol. 4, pt. 2.)

BLANCHARD, PIERRE [1772–1856].

1817–19. Thesouro de meninos; resumo de historia natural, para uso da mocidade de ambos os sexos, e instrucçáo das pessoas, que desejáo ter noçóes da historia dos tres reinos da natureza; obra elementar, tr. do Francez, com muitas correcções e artigos novos. *12mo. illust. pl.* *Lisbõa.*

The library copy has the portion relating to zoology, tom. iii–v. The three volumes are from the Royal library with the Portuguese arms stamped on the leather cover.

BLANCHARD, RAPHAËL ANATOLE ÉMILE [1857–?1929].

1902. Madagascar au début du XXe Siècle. *8vo. pp. 5+465. 1 pl. figs. in text.* (Wanting.) *Paris.*

The natural history was not forgotten in this treatise, the zoology having been discussed by G. Grandidier.

BLANCHÈRE, H. DE LA.

1875. Oiseaux et les Oiseaux nuisibles. *illust. Paris.*

All the (popular) works of this author are extremely scarce.

1876. Les oiseaux gibier. . . . *Paris.*

1884. Les oiseaux utiles et les oiseaux nuisibles. 4th ed. *pp. 387. 150 figs.* *Paris.*

A French contribution of importance to economic ornithology. Very rare.

BLANCHET, A. and **others.**

1924. Contributions à l'ornithologie Tunisienne pour servir de complément et de supplément aux Birds of Tunisia. *See also* LAVAUDEN, L.

BLANCKE, B.

[1913]. Musterbeschreibungen unseres Rassegeflügels auf Grund der vom Club deutscher Rassegeflügelzüchter und den Sonderzuchtverein veröffentlichten Standards. *8vo. pp. 154. 41 text-figs. T. of c.* *Berlin.*

A useful descriptive catalogue, in popular form, of the various races of farmyard fowls and other domesticated birds.

BLANFORD, WILLIAM THOMAS [1832–1905].

1870. Observations on the geology and zoology of Abyssinia, made during the progress of the British expedition to that country in 1867–68. *8vo. pp. xii+487. front. (map col. fold.). 12 pl. (6 col.). 4 wood engravings. 1 map (col. fold.). 17 figs. T. of c. index.* *London.*

Divided into three parts: (1) A brief description of the journey; (2) Geology; (3) Zoological observations. The portion devoted to the birds will be found on pp. 285–443 with six colored plates, by J. G. Keulemans. The annotated list enumerates 293 species and subspecies, with short synonymy, range, general habits, etc.

1876. Eastern Persia: An account of the journeys of the Persian boundary commission 1870–71–72. *2 vols.* Vol. II, Zoology and Geology. *8vo. pp. viii+516. xxviii pl., majority col. index.* *London.*

A valuable account, much of it contributed by Major O. B. St. John, of the fauna of Persia, with the native names of the animals. The volumes were issued by the authority of the Government of India, and beautifully illustrated by Keulemans. These volumes were also separately sold.

1876. *See* GOLDSMID, *Sir* F. J., Eastern Persia.

1876. Zoology and geology. *8vo. pp. 8+516. illust. pl.* (Persian boundary commission, vol. II.) *London.*

1876. Zoology of Persia. (Boundary Commission.) *London.*

An important contribution to the subject, separately issued.

1878–91. *See* SCIENTIFIC RESULTS . . . SECOND YARKAND MISSION.

1888–91. The fauna of British India, including Ceylon and Burma. *8vo. pp. 20+617. illust.* *London.*

A famous treatise with many contributors under the editorial control of W. T. Blanford.

1888–91. Mammalia [of British India]. *8vo. pp. 6+20+617. illust.* (Fauna of British India.) Illustrations and clippings inserted. *London.*

1889. The fauna of British India, including Ceylon and Burma; Fishes by Francis Day. *2 vols. 8vo. illust.* *London.*

1889–98. The fauna of British India, including Ceylon and Burma; Birds (vols. 1–2) by E. W. Oates and (vols. 3–4) W. T. Blanford. *4 vols. 8vo. illust.* *London.*

A second edition of the birds is now in course of preparation by E. C. Stuart Baker.

1890. The fauna of British India, including Ceylon and Burma; Reptilia and Batrachia by G. A. Boulenger. *8vo. pp. 18–541. illust. London.*

BLANKENBURG.

1840–62. Naturwissenschaftl. Verein des Harzes zu Blankenburg. Berichte (Title varies) (no issue for 1850)—all pub.

BLASIUS, GERARD [1623–82].

1681. Anatome animalium, terrestrium varorum, volatilium, aquatilium, serpentum, insectorum, ovorumque, structuram naturalem ex veterum, recentiorum, propriisque observationibus proponens. *4to. pp. 6+494. pl. illust. Amstelodami.*

This well known and important early treatise has a frontispiece and 60 plates illustrating the comparative anatomy of numerous animals.

BLASIUS, JOHANN HEINRICH [1809–70].

1820–60. *See* NAUMANN, JOHANN ANDREAS.

1857. Naturgeschichte der Säugethiere Deutschlands und der angrenzenden Länder von Mitteleuropa. 290 abbild. im texte. *23 cm. pp. vi, 549. illust.* (Added t.-p.: Fauna der Wirbelthiere Deutschlands und der angrenzenden Länder von Mitteleuropa . . . 1. Bd. Säugethiere.) *Braunschweig.*

1857. Fauna der Wirbelthiere . . . von Mitteleuropa. Erster Band: Säugethiere. *8vo. pp. 6+549. illust.* *Braunschweig.*

An uncompleted but important systematic treatise on the zoology of middle Europe.

[**BLASIUS,** J. H. (*contd.*)]

1862. A list of the birds of Europe. Reprinted from the German, with the author's corrections. *8vo. 22 cm. pp. 24.* 'Tr. and ed. by A. Newton.'—*Brit. Mus. Catalogue* (*Nat. Hist.*).

This rare pamphlet, a systematic list of birds with their distribution and British references by the editor, is a translation of an unpublished MS. or privately printed paper (in German) by Prof. Blasius written in 1861. The names of four new genera are inserted. The treatise, though brief, is an important and useful 'fundamental'. The copy in hand is from the library of P. L. Sclater.

BLASIUS, RUDOLF.

1867. Über die Bildung, Structur und systematische Bedeutung der Eischaale der Vögel. *8vo. pp. 48. pl.* *Leipzig.*

1891. Systematische Uebersicht der Vögel Bayerns. *See also* JÄCKEL, A. J.

1897. Braunschweig im Jahre 1897, etc. *8vo. pp. 13+634. 3 tables. 13 pl. 3 maps. text-figs.* (Wanting.) *Braunschweig.*

In the above review of Brunswick (a *Festschrift*) the fauna in the state and surrounding regions is described, the mammals, batrachians, reptiles, and fishes by W. Blasius, the birds by R. Blasius.

1906. *See* GÄTKE, HEINRICH.

BLASIUS, WILHELM [1845–1918].

1883. Voegel von Borneo, etc. *8vo.* *Wien.*

1883. Ueber neue . . . Voegel von Celebes. *8vo.* *Braunschweig.*

1893. Verzeichniss der ornithologischen Sammlungen E. F. von Homeyer's. *4to. pp. 35.* (Museum Homeyerianum.) Ausgestopfte Vögel, Balge, Eier und Nester. *Braunschweig.*

The celebrated Homeyer collection, described above, consisted of 1,785 stuffed birds, 5,012 bird-skins, 4,950 eggs, and 160 nests, representing in all 1,086 avian species.

1897. Neuer Beitrag zur Kenntniss der Vogelfauna von Celebes. *4to. pp. 124. pl. Braunschweig.*

1897. *See* BLASIUS, RUDOLF.

BLÄTTER FÜR AQUARIEN- UND TERRARIENKUNDE. **1890**–*date*. *See also* NATUR UND HAUS. *Stuttgart, Magdeburg.*

BLÄTTER DES BOEMISCHEN VOGELSCHUTZ-VEREINS IN PRAG. Redakteur: Dr. Wladislaus Schier. Monthly. *Prague.* Vols. 1–3. 1880–4. (All issued.) *8vo. illust. T. of c. with each number.*

This short-lived journal contains (besides an account of the activities of the society of which it was the organ) a number of serious scientific articles, especially a paper on the migration routes of Bohemian birds.

BLEEKER, PIETER [1819–78].

1862–78. Atlas Ichthyologique des Indes Orientales Néerlandaises, etc. *9 vols. folio. many col. pl.* *Amsterdam.*

One of the most important treatises on oriental fishes by a famous ichthyologist.

1874. Poissons de Madagascar et de l'Île de la Réunion. *4to.*

This is an author's excerpt (Part 4) from Pollen and Dam's *Recherches sur la Faune de Madagascar.*

BLISS, WALTER PARKS, **SAGE,** J. H., and **BISHOP,** L. B.

1913. The birds of Connecticut, &c. *See* SAGE, J. H. and BISHOP, L. B.

BLOCH, MARCUS ELIESER [1723–99].

1782. Abhandlung von der Erzeugung der Eingeweidewürmer und dem Mitteln wider dieselben. *8vo. pp. [6]+54. 10 pl.* *Berlin.*

1782–95. Allgemeine Naturgeschichte d. Fische. *Berlin.*

A fundamental, early treatise well known to advanced research students.

1783–7. Oekonomische Naturgeschichte der Fische. 5 Bde. *216 color. Taf.* *Berlin.*

An important work on fishes.

1785–9. Ichthyologie, etc. *12 vols. 432 col. pl.*

One of the early and fundamental treatises on general ichthyology by a well-known authority. There are several translations and subsequent editions of this valuable work.

BLOEMART, ABRAHAM.

[**1640**]. [Engravings of birds, beasts and fishes.] *no t.-p. 53 pl.*

These are apparently wrongly attributed to the Dutch engraver Abraham Bloemart. They were executed on copper by a French engraver, Pierre Firens, about 1640. The cover-title bears the name of Bloemart, the engravings bear that of Firens.

BLOME, RICHARD [*d.* 1705] (**CUMING,** E. W. D., *ed.*).

1929. Hawking or faulconry. *8vo. pp. (4)+vii–xxxii+123+(1). front. (fold.). 4 pl. 7 figs. glossary.* [*London.*]

The preface (by the editor) contains a general account of hawking and birds of prey from the earliest times; the remainder of the book being an exact reprint of Blome's *Hawking or Faulconry*, 1686.

BLOMEFIELD, LEONARD, originally *Rev.* LEONARD JENYNS [1800–93].

1835. A manual of British vertebrate animals: or Descriptions of all animals belonging to the classes, *Mammalia*, *Aves*, *Reptilia*, *Amphibia*, and *Pisces*, which have been hitherto observed in the British Islands. *8vo. pp. xxxii+559.* *Cambridge.*

The portion relating to the class Aves will be found on pp. 49–286, with references in the bibliography, pp. xxv–xxxii. Following the scientific name, comes the vernacular or common name of each species, with dimensions, and a description of summer and winter plumage, as well as general range and habits, etc.

1839–43. *See* Zoology of the Voyage of H.M.S. Beagle.

1846. Observations in natural history. *12mo. pp. xvi+440. T. of c. index.* *London.*

Original observations, those on birds being found on pp. 86–196. The calendar of periodic phenomena, pp. 366–428 (including birds), was made in the neighbourhood of Swaffham Bulbeck between 1820–31. The present copy is from the Mullens Library with bookplate.

1922. A naturalist's calendar kept at Swaffham Bulbeck, Cambridgeshire; ed. by Francis Darwin. 2nd ed. *12mo. pp. xviii+84.* *Cambridge.*

'BLOSSOM', VOYAGE OF THE. *See* BEECHEY, FREDERICK WILLIAM, 1839.

BLUE-BIRD.

1913–20. Published monthly (except July and August) in Co-operation with the Cleveland Bird Lovers' Association. For all those who are interested in Wild Birds and their preservation. *8vo. col. and pictured title-page. illust.* Volumes run from Dec. to Nov.; or, from October on. For example. Vol. 1 is Dec. 1909; No. 12, Nov. 1910, inclusive of the Blue bird vols. Editor: Elizabeth C. T. Miller, Cleveland, Ohio; Georgia M. Bowen, Assistant. The first vols. 1–6, No. 2, inclusive,

were entitled *Nature and Culture*; afterwards *Blue Bird*. Eugene Swope was the first editor.

This defunct (or suspended) popular magazine did much in its day to diffuse our knowledge of American avifauna and to enlist the sympathy and co-operation of nature lovers in the campaign for bird protection. The magazine has three times at least changed its format, covers, spelling of Blue-bird, Blue bird, and Bluebird. Sometimes the numbers are separately, sometimes continuously paged.

BLUMENBACH, JOHANN FRIEDRICH [1752–1840].

1779–80. Handbuch der Naturgeschichte. 2 Thl. *8vo.* *Göttingen.*

One of the early publications of a famous scientific naturalist.

1797–1810. Abbildungen naturhistorischer Gegenstände. *12mo. 10 pts. in 1 vol. 100 pl.* *Göttingen.*

Nos. 1–100 with separate title-pages. 100 copper plates of men (portraits) and lower animals (a few colored) including 19 of birds, of which nine are colored. These 100 plates are accompanied by descriptive text. They include an interesting (composite) picture of the Dodo.

1803. Manuel d'histoire naturelle, tr. de l'allemand par Soulange Artaud. *2 vols. 8vo. pl. portr.* *Metz.*

The fifth section of the first volume is on birds, pp. 170–280. There are plates of the Secretary Bird of the Cape, the Scarlet Creeper of Hawaii, the Green Creeper of New Zealand, and the Dodo of Mauritius and Réunion. Blumenbach's nine orders of birds are: Accipitres, Levirostres, Pici, Coraces, Passeres, Gallinae, Struthiones, Grallae, Anseres.

1825. A manual of the elements of natural history; tr. from the 10th Germ. ed. by R. T. Gore. *8vo. pp. (10)+415+(1)+xiv. 2 pl. T. of c. index.* *London.*

This work is divided into twelve sections, of which Section V contains the text relating to birds, pp. 79–130, together with a bibliography.

1830. Handbuch der Naturgeschichte. Zwölfte rechtmässige Ausgabe. *8vo. pp. x+668. 2 pl. front. portr. index.* *Göttingen.*

The twelfth (and perhaps best) edition of this well-known text-book, containing much valuable information for the student of systematic zoology. There is in this library an English edition, a translation of the tenth German printing.

1855. Aller Sing- und Stubenvögel, etc. *2 col. pl.* *Wien.*

1865. The anthropological treatises of Johann Friedrich Blumenbach. . . . Tr. and ed. from the Latin, German, and French originals, by Thomas Bendyshe. *8vo. pp. 14+406. 4 pl.* (Half-title: Publications of the Anthropological society of London.) [O.]

BLYTH, EDWARD [1810–73].

1836. The natural history of Selborne. *See* WHITE, *Rev.* GILBERT.

1840. Cuvier's Animal kingdom, arranged according to its organization; forming the basis for a natural history of animals, and an introduction to comparative anatomy. Mammalia, birds and reptiles. *See also* CUVIER, G. L. C. F. D. *Baron.*

1849–[1852]. Catalogue of the birds in the museum [of the] Asiatic Society. *8vo. pp. 34+403.* *Calcutta.*

This valuable and well-known catalogue lists specimens from all the zoological regions and its publication extended over four years. To the main body of the text are added seven appendices bringing the synonymy of the various species to date of final publication in 1852. The copy in hand has an A.L.S. of Dr. Jerdon to the author.

1851. The animal kingdom. By G. Cuvier, translated and adapted to the present state of science. The mammalia, birds, and reptiles by E. Blyth, &c. *See* CUVIER, G. L. C. F. D. *Baron.*

1875. Catalogue of Mammals and Birds of Burma. *8vo. pp. 14+167.* *London.*

A work of importance to research students, in which the mammalian records are edited by J. Anderson and G. E. Dobson, the birds by Viscount Walden.

******** and **TEGETMEIER,** WILLIAM B.

1881. The natural history of the cranes. A monograph by the late Edward Blyth, greatly enlarged, and reprinted, with numerous illustrations, by W. B. Tegetmeier. *4to. pp. vi+(2)+91+(1). front. (col.). 6 pl. (1 col., 1 fold.). 20 figs. T. of c. append. index.* *London.*

A reprint of Blyth's papers from the *Field*, 1873, which with additions from other sources and illustrations, now makes the work a summary of nearly all that is known respecting this interesting group. Tegetmeier recognizes 16 species. The rare *Grus nigricollis*, met with by the traveller Prejevalsky on the banks of the Koko-nor, is copied from the Russian original.

BOARDMAN, GEORGE A. and **VERRILL,** A. E. [1862]. Catalogue of the birds found in the vicinity of Calais, Maine, and about the islands at the mouth of the Bay of Fundy. *8vo. pp. 122–7+130–2.*

Primarily not intended for publication, but afterwards rewritten by Verrill, who incorporated some of his own observations made at Grand Menan in 1859. The list contains the names of about 180 species. (From the *Proc. Bost. Soc. Nat. Hist.*, vol. ix, Sept. 1862.)

1903. The Naturalist on the Saint Croix, etc. *Bangor, Maine.*

BOAS, JOHAN ERIK VESTI [1855–].

1881. Bidrag til Kundskaben om Cunus arteriosus og Arteriebuerne hos Amphibierne. *8vo. pp. 100. illust.* *Kopenhagen.*

1890. Lehrbuch der Zoologie.

One of the most approved text-books on the subject.

1912. Ohrknorpel und äusseres Ohr der Säugetiere; eine vergleichend-anatomische Untersuchung. *pp. 6+226. 25 pl.* *Kopenhagen.*

BOATE, GERARD [1604–50].

1726–55. A natural history of Ireland in three parts. By Several Hands, etc. *4to. pp. iv+213. 10 pl. and text-figs.* *Dublin.*

A quaint description, including some natural history. One of the 'Several Hands' is Sir Thomas Molyneux who wrote part III, in the library copy (posthumously?) dated 1755. There were probably several printings of the Parts.

1755. Ireland's Natural History. *1 vol. 8vo. London.*

BOCHART, SAMUEL [1599–1667].

1663. Hierozoicon; sive, Bipertitum opus de animalibus Sacrae Scripturae. Pars prior agit libris quatuor de animalibus in genere et de quadrupedibus viviparis et oviparis; pars posterior agit libris sex de avibus, serpentibus, insectis, aquaticis et fabulosis animalibus; cum indice septuplici. *2 vols. in 1. folio.* *Londini.*

The *editio princeps* of this famous work, in which one finds a curious history of the animal life of the bible. The author, an erudite Frenchman and Protestant clergyman, discusses the (ancient) natural history of the horse and the ass as well as of most other animals (birds, insects, fish, serpents) mentioned in Holy Writ as well as accounts of them in secular works.

1675. Hierozoicon; sive, Bipertitum opus de animalibus S. Scripturae, cuius pars prior libris IV, De animalibus in genere & de quadrupedibus, viviparis & oviparis: pars posterior libris VI, De avibus, serpentibus, insectis, aquaticis & fabulosis

[**BOCHART,** S. (*contd.*)]
animalibus agit; cum indice septuplici. Revisum atque correctum . . . opera atque studio David Clodii. *2 vols. in 1. folio. portr.*
Francofurti ad Moenum.

A revised, second (Latin) edition of this well known treatise.

1692. Hierozoicon. 3rd Latin ed. Copies in both the Blacker and Osler libraries. *Leyden.*

1712. Hierozoicon. 4th ed. *folio.* *Lug. Batav.*

There are, also, several other printings, for example, a German edition published 1793–6, in Leipzig.

BOCOURT, FIRMIN (1819–92].
1870. Études sur les Reptiles et les Batraciens. *4to.* *Paris.*

This is a separate of the joint work, part III (with A. H. A. Duméril), of the *Mission scientifique au Mexique* (q.v.).

BOCQUILLON-LIMOUSIN, HENRI [1834–1905].
1871. Manuel d'histoire naturelle médicale. *2 vols. illust.* *Paris.*

A short section in vol. I (pp. 342–67) is devoted to the structure, uses, and classification of birds.

BODDAERT, PIETER [*fl.* 1784] (TEGETMEIER, W. B., *ed.*).
[**1874**]. Reprint of Boddaert's Table des Planches enluminéez d'histoire naturelle. Includes reproduction of original t.-p.: Table des Planches enluminéez d'histoire naturelle, de M. d'Aubenton . . . precedé d'une notice des principaux ouvrages zoologiques enluminés. Utrecht, 1783. *pp. (4)+(4)+v–xv+(1)+58.* *London.*

Exact reprint of this exceedingly rare book of which only a very few copies were printed at the time of publication at Utrecht in 1783. Only two copies are known to exist in the United Kingdom, one in the Banksian Library, and the second in private hands. Its present value to zoologists is due to its applying for the first time, to very many species, the presently received system of scientific nomenclature, and thus fixing, by reason of priority, the names of a considerable number of genera and species.

BODLEY HEAD NATURAL HISTORY.
1913–14. Vols. 1–2. British birds. Passeres. *See* CUMING, E. W. D.

BOECKING, A. E.
1894. The Nandu. Author's excerpt. *pp. 22.*
San Antonio, Texas.

BOEHMISCHES MUSEUM FÜR NATUR- UND LANDESKUNDE. *Prague.*
1830–1. Jahrbücher.

BOERHAAVE, H. *See* SEBA, ALBERTUS, 1734–65.

BOETTGER, O. *See* BREHM, A. E., 1890–3.

BOGHDANOV, MODEST NĬLOLAEVĬCH [1841–88].
1879. Ptitzui Kavhaza [Birds of the Caucasus]. *8vo. pp. 188+9.* [Society of naturalists at the Imperial Kazan University.] In Russian. *Kazan.*

A valuable contribution to the study of Birds of the Caucasus, separately printed with a new title-page, with script translation into English. 323 species are listed and described. The copy in hand was presented by the author to P. L. Sclater.

1884. Conspectus avium Imperii Rossici. *folio. pp. 122.* Fasciculus I (all pub.). *St. Petersburg.*

A treatise on the Russian avifauna, five orders being described in this part. A full synonymy with distribution of the species is furnished. There is, also, an account of several new forms. The text is in parallel columns of Russian and French. The present copy is from the Godman Library.

BOHADSCH, JOANNES BAPTISTA [1724–72].
1761. De quibusdam animalibus marinis eorumque proprietatibus, orbi litterario vel nondum vel minus notis, liber; cum nonullis tabulis aeri incisis. *8vo. pp. 18+169. 12 pl.* *Dresdae.*

BÖHM, RICHARD [1854–84].
1888. Von Sansibar zum Tanganjika, Briefe aus Ostafrika; mit einer biographischen Skizze hrsg. von Herman Schalow. *8vo. pp. 36+171. portr. map.* *Leipzig.*

BÖHMEN.
1869–1920. Arkiv f. d. naturwissenschaftl. Landesdurchforschung von Böhmen. *Prague.*

BOHN'S ILLUSTRATED LIBRARY. The feathered tribes of the British Islands.

There are many other titles of importance to the student of vertebrate zoology published by this well-known Library; for example, an edition of Gilbert White's *Natural History of Selborne*, and two editions of W. B. Carpenter's *Zoology*, 1857 and 1866. The latter are in the Scientific Section.

BOITARD, PIERRE [1789–1859].
1827. Manuel d'histoire naturelle . . . les trois règnes. *2 vols. 18mo. 2 pls. numerous col. and plain figs.* *Paris.*

This copy was presented to the Library by Sir Donald Smith. The classification of birds adopted is that of Temminck, containing 16 orders instead of Cuvier's six orders. Very rare. Not in the Br. Mus. Nat. Hist. Library.
Englemann's *Bib. Histor.-Naturalis*, i. 145, gives a complete collation of this work.

1842. Le Jardin des Plantes à Paris, etc. *4to. illust.* *Paris.*

BOLAM, GEORGE [1859–].
1912. Birds of Northumberland and the Eastern Borders. *8vo. photo title. pp. [iv]+xvii+726. 27 pl. T. of c. index.* *Alnwick.*

A full account of the avian species in the area given, evidencing a wide and personal experience of English bird-life.

BOLETIM DO MUSEO PARAENSE DE HISTORIA NATURAL E ETHNOGRAPHIA, PARÁ, BRAZIL. *See* MUSEO GOELDI DE HISTORIA NATURAL, PARÁ.

BOLETIN D. (R.) ACADEMIA DE CIENCIAS Y ARTES DE BARCELONA. **1840–2.**
See (R.) ACADEMIA DE CIENCIAS . . . BARCELONA.

BOLETÍN NACIONAL DE HISTORIA, GEOGRAFÍA Y CIENCIAS NATURALES.
1912–13. *Havana.*

BOLETÍN DE PESCAS. (Instituto Español de Oceanografía.) **1916–*date.*** *Madrid.*

BOLINGBROKE, HENRY [1785–1855].
1809. A voyage to the Demerary, containing a statistical account of the settlements there, and of those on the Essequebo, the Berbice, and other contiguous rivers of Guyana. *8vo. pp. 224. front. (map fold.). index.* *London.*

The sketch of these settlements is in great part copied from successive letters written by the author to his family, in the course of a seven years' residence at Stabrock, without any view to publication. The peculiar and singular birds are described on pp. 136–40. The contents of the above letters originally appeared in a fine quarto volume.

BOLLACK, Léon [1859–].

1914. L'emploi rationnel de la plume des oiseaux sauvages. *8vo. pp. 69+(2). T. of c. bibliogr.* *Paris.*

A pamphlet on the rational marketing of birds' feathers.

BOLLES, Frank [1856–94].

1891. Land of the lingering snow. Chronicles of a stroller in New England from January to June. *12mo. pp. (4)+234. T. of c. index.* *Boston.*

In these chronicles very many references to birds occur under such headings as: the first Bluebirds, the coming of the birds, the Vesper song of the Woodcock, Wood ducks, and bloodroot, a forest anthem, the Bittern's love song, Warbler Sunday, and in the Wren orchard.

1893. At the north of Bearcamp water. Chronicles of a stroller in New England from July to December. *16mo. pp. (4)+297. T. of c.* *Boston.*

Interesting accounts of visits to this locality in New Hampshire, which embrace climbing Bear Mountain and Chocurua, etc. References to birds are numerous and occur throughout the volume. The present copy is of the second edition, the first being published in the same year.

1894. From Blomidon to Smoky, and other papers. *8vo. pp. 4+278. index.* 'First published in different periodicals between the years 1890 and 1894.' *Boston and New York.*

Deals mostly with birds of Nova Scotia and New Hampshire.

BOLLETTINO, DELL' ISTITUTO ZOOLOGICO DELLA R. Università di Roma.

1923–7. Vols. 1–5.

BOLLETTINO DEI NATURALISTE, COLLETTORE, etc. *Later* RIVISTA ITALIANA DI SCIENZE NATURALI.

BOLLETTINO DELLE PUBBLICAZIONI ITALIANE. 1886–1900. *Florence.*

BOLLETTINO DELLA SOCIETÀ ZOOLOGICA ITALIANA. ? **1891**–*date.*

BOLOGNA. Memorie d. (R.) Accademia delle Scienze dell' Istituto. *See* (R.) ACCADEMIA . . . BOLOGNA. **1850–1907.** (Wanting.)

BOLOGNA. Memor. della Classe di Scienze fisiche.

1908–*date. See* (R.) ACCADEMIA DELLE SCIENZE . . . BOLOGNA.

BOLOGNA. *See* ANNALI DI STORIA NATURALE.

BÖLSCHE, Wilhelm.

1917. Stammbau der Tiere. *illust.* *Stuttgart.*

BOLTON, Henry Carrington [1843–1915].

1898. Catalogue of Scientific and Technical Periodicals, 1665–1895. 2nd ed.

BOLTON, James (*fl.* 1775–95].

1794. Harmonia ruralis: or, An essay towards a natural history of British song birds. *2 vols.*

The first edition of this well-known work that has passed through many editions.

1824. Harmonia Ruralis, etc. 2nd ed. *2 vols. 4to.*

1830. Harmonia ruralis . . . illustrated with figures, the size of life, of the birds, male and female, in their most natural attitudes; their nests and eggs, etc. *2 vols. in 1. 4to.* Vol. 1, *pp. xxiv+(2)+66. front. (col.). 40 pl. (col.). T. of c.* Vol. 2, *pp. (2)+96+(4). 40 pl. (col.). 1 table.* *London.*

Popular descriptions of some British song-birds, with accounts of their habits and nidification, the table at the end of vol. 2 denoting the comparative merit of their singing.

1845. Harmonia ruralis, etc. A new ed. *2 vols. in 1. 4to.* Vol. 1, *pp. xxiv+(4)+66+(2). front. (col.). 40 pl. (col.). T. of c. 1 table.* Vol. 2, *pp. (2)+96+(2). 40 pl. (col.).* *London.*

BOMBAY BRANCH OF ROYAL ASIATIC SOCIETY OF GREAT BRITAIN AND IRELAND. *See* ROYAL ASIATIC SOCIETY . . . BOMBAY BRANCH.

BOMBAY. Natural History Society, Journal.

1886–*date.* *Bombay.*

The Society was founded in 1883 'for the purpose of exchanging notes and observations on Zoology and exhibiting interesting specimens of animal life'. Its illustrated journal, which is issued quarterly as far as possible, contains articles dealing with Natural History subjects of scientific and popular interest contributed mainly by members. As a scientific journal it ranks amongst the most important publications issued in the East and is an indispensable aid to the study of the Oriental Fauna and Flora. On the popular side its articles appeal to the sportsman and naturalist the world over.

BONAPARTE, Charles Lucien Jules Laurent, *Prince de Canino* [1803–57].

1825–33. American ornithology; or, The natural history of birds inhabiting the United States, not given by Wilson. With figures drawn, engraved, and coloured, from nature. *4 vols. folio.* Vol. I, *pp. vi+(2)+105. 9 pl. (col.). index.* Vol. II, *pp. vii+(3)+95. 6 pl. (col.). index.* Vol. III, *pp. (4)+60. 6 pl. (col.). index.* Vol. IV, *pp. (4)+142. 6 pl. (col.). index.* *Philadelphia.*

This work forms a supplement to Alexander Wilson's *American Ornithology*, 1808–14, and is included in Jardine's later edition of that work, 1832, as a 'Continuation of Wilson's American Ornithology by Charles Lucien Bonaparte'. It is included, also, in the Jameson edition of 1831 and the 'Popular Edition' of 1864, but under the proper title of 'Bonaparte's American Ornithology'. In all of these, however, Bonaparte's name is joined with Wilson's on the title-pages. The present work was originally planned in three volumes. The plates are mostly by Titian R. Peale and A. Rider, with part of one plate by Audubon; engraved by Alex. Lawson and colored by hand.

1826. Observations on the nomenclature of Wilson's ornithology. *8vo. pp. 250.* Reprinted from Academy of natural science of Philadelphia, *Journal*, vols. 3–5. *Philadelphia.*

Coues furnishes the dates and numbers of the *Journal* in which this publication first appeared. The treatise is a critique of Wilson's *American Ornithology*, 1808–14, particularly as regards the nomenclature.

[? **1826**]. General synopsis of Mammalia inhabiting North America.

Appendix to J. D. Godman's *American Natural History* (q.v.).

1827. Specchio comparativo delle ornitologie di Roma e di Filadelfia. *8vo. pp. xvi+17–80.* Estratto dal No. XXXIII. del Nuovo Giornale de' Letterati.

A repaged excerpt from the Godman library, intended to contrast the birds of Rome with those of Philadelphia. 247 species of the former are placed in longitudinal columns with 281 of the latter to illustrate their relationship. In each instance the vernacular as well as the zoological names are given, with occasional brief descriptive notes. A second edition of this monograph appeared in 1832.

1828. The genera of North American birds and a synopsis of the species found within the territory of the United States. *8vo. pp. 284.* Ex. from the *Annals of the Lyceum of Natural History of New York.* *New York.*

This synopsis was earlier promised in the preface to the continuation

[**BONAPARTE,** C. L. J. L., *Prince de Canino* (*contd.*)]

of Wilson's *Ornithology*, and issued before the final publication of that work. In the present copy it is given a somewhat different title from the heading of the article in the *Annals* in that the words 'systematically arranged in Orders and Families' are omitted from the former.

1832. Supplemento allo specchio comparativo delle ornitologie di Roma e Filadelfia. *8vo. pp. 15.*

A repaged separate containing corrections of and additions to his earlier *Specchio comparativo*, 1827. Occasionally, as in one of the copies in this library, both works are bound as one volume.

1832–41. Iconografia della fauna italica per le quattro classi degli animali vertebrati. *3 vols. 38½ × 28 cm. 180 col. pl.* Issued in 30 parts. *Roma.*

A bibliographic account of this work by Tommaso Salvadori, giving collation, date of publication of the various parts, and index of the species illustrated, is given in *Bollettino dei Musei di zoologia ed anatomia comparata della R. Università di Torino*, vol. iii, no. 48 (June 20, 1888).

1838. A geographical and comparative list of the birds of Europe and North America. *pp. 7+67. London.*

The student is referred to a review of the above important item in the *Ann. Mag. Nat. Hist.*, June 1838, p. 318.
The species, with some new names, are arranged in parallel columns with appropriate notes.

1840. Prodromus systematis ornithologiae. *8vo. pp. 26. n.p.*

The present copy of this tractate is from the library of G. R. Gray, and has numerous marginal notes by him. It is entirely in Latin and briefly lists the diagnostic characters of the eight orders as well as the families and subfamilies of the Subclass Insessores. It may be regarded as an introduction to the author's *Systema ornithologiae.*

1846. Catalogo metodico dei pesci Europei. *4to. Napoli.*

1850–7. Conspectus generum avium. Auctore Carolo Luciano Bonaparte . . . Lugduni Batavorum. *2 vols. 4to.* Vol. I, *pp. 543.* Vol. II, *pp. 232.* Index added in 1865 by F. H. O. Finsch.

Dr. Jerdon's copy with interleaved notes. There is also another copy in the E.S.W. Library, bound with Finsch's Index.

1850. Revue critique de l'Ornithologie européenne de M. le docteur Degland (de Lille). Lettre à M. de Selys Longchamps. *12mo. 18½ cm. pp. 206.* 'Conspectus systematis ornithologiæ', pp. [115]–125. 'Conspectus avium europæarum', pp. [127]–206. *Brussels.*

In addition to criticizing Degland's treatise (q.v.) in this letter to de Selys Longchamps, Bonaparte adds the above-named monographs. In the latter are catalogued the genera, families, and species of 530 European birds, with a short synonymy and account of their distribution. The present copy is from the Godman library with the following note, in the handwriting of the distinguished author: 'To Mr. G. R. Gray, Ornithologist to the British Museum, London. This book is now sent for the third time. I hope it will reach [you] with all the others.'

1850. Notice sur les travaux zoologiques. *4to. Paris.*

Author's reprint of a small but important article.

1853–7. [Ornithological papers.] *12 vols. in 1. 4to. pp. 35+323. Paris.*

This work (principally extracts from the *Comptes rendus des Séances de l'Académie des Sciences*, with MS. notes and T. of c.) comprises the classification of birds by series, the publication of which was urged upon Prince Lucien Bonaparte by fellow zoologists. The collection includes a note giving a correct history of the edible birds' nests of Java and other Eastern countries. This last is dated 1855.

1854. Conspectus systematis ornithologiae. *8vo. pp. 48. no t.-p.* [Ann. Sci. nat., ser. 4, vol. 1, 1854. Separately printed.]

In this classification, which antedates that of Huxley by ten years, the Struthiones are given the highest rank since, in the author's opinion, they tend towards the Mammalia, whereas, he says, the aberrant species of mammals tend towards the reptiles.

1854. Notes ornithologiques sur les collections rapportées en 1853 par M. A. Delattre de son voyage en Californie et dans le Nicaragua. *4to. Paris.*

This tractate is valuable especially for students of American bird-life.

1856. Catalogue des oiseaux d'Europe offerts en 1856 aux ornithologistes. *See* PARZUDAKI, ÉMILE.

1857–8. Iconographie des pigeons non figurés par Mme Knip (Mlle Pauline Decourcelles) dans les deux volumes de MM Temminck et Florent Prevost par Charles-Lucien Bonaparte Ouvrage servant d'illustration à son Histoire Naturelle des Pigeons. *super-roy. folio. 5 prelim. ll. 62 ll. of text. 55 col. pl. irregularly numbered 1–140 in descriptive text (not on plates). T. of c. Paris.*

Largely a posthumous treatise, edited by A. Moquin-Tandon. It was originally intended that the work should be issued in 30 livraisons of 150 plates, but Prince Bonaparte died after the publication of the fourth livraison leaving both MS. and plates incomplete. Some copies are incomplete, but the present one, from the library of J. H. and Richard J. Gurney, is quite complete. The hand-colored bird portraits are extremely fine.

1857. Iconographie des perroquets, etc. *See* SOUANCÉ, CHARLES DE.

BONAVIA, EMMANUEL.

1895. Studies in the Evolution of Animals. *8vo. Westminster.*

BOND, JOHN WALPOLE.

1914. Field-studies of some rarer British birds. *8vo. pp. ix+(2)+305. T. of c. London.*

Most of the species described are really scarce, or extremely local, while a few others, notably the Kite, are very rare indeed.

BONDE, C. VON and **GILCHRIST,** J. D. F.

1922. Practical zoology for medical and junior students. *See* GILCHRIST, J. D. F.

BONER, CHARLES [1815–70].

1861. Forest creatures. *pp. 8+245. pl. London.*

BONFADINI, VITA.

1672. La caccia dell' Arcobugio, con la prattica del tirare in volo, in aere, & à borita. *pp. 96. illust. Bologna.*

BONHOTE, JOHN LEWIS [1875–1922].

1903–7. *See* ANNANDALE and ROBINSON.

1907. Birds of Britain, with 100 illustrations in colour selected by H. E. Dresser from his 'Birds of Europe'. *8vo. pp. x+405. front. (col.). 99 pl. (col.). 1 fig. index. London.*

A popular but scientific account of the haunts and habits, etc., of the species treated.

[**1917**]. Birds of Britain. *8vo. pp. x+405. front. (col.). 99 pl. (col.). 1 fig. (diagr.). index. London.*

Apparently differing in no way from the original issue of 1907. Reprinted also in 1912 and 1914.

1919. Birds of Britain.

Another printing of this popular work.

1923. Birds of Britain and their eggs. *8vo. pp. vii+405. front. (col.). 32 pl. (col.). 1 fig. index. London.*

First published in 1907 (q.v.), and reprinted 1917 (q.v.), under the title *Birds of Britain*, with 100 colored illustrations. In the present edition the colored plates have been reduced to 33, of which three are of eggs, these not appearing in the original issue. The text, however, is the same as that of the first édition.

BONITE, LA, VOYAGE OF. *See* VAILLANT, AUGUSTE NICOLAS, 1841–52.

BONN. Naturhistorischer Verein der preussischen Rheinlande, Westfalens und des Reg.-Bezirks Osnabrueck.
1844–*date*. Verhandlungen. *8vo. pl. maps.* From 1854–94 their Sitzungsberichte are included in the Verhandlungen, 1895–? published separately. *Bonn.*

1844–83. Autoren und Sachregister zu Band 1–40 (1844–83). *1 vol.* *Bonn.*

BONNATERRE, Jos. P. [1752–1804].
1788. Tableau encyclopédique et méthodique des trois règnes de la nature, . . . *Ichthyologie. Paris.*
The atlas (of fishes) forms vol. 5 of the *Tableau encyclopédique*, consists of 102 plates, and is separately issued.

****. **1789–1823.** *See* ENCYCLOPÉDIE MÉTHODIQUE.

BONNER, Mary G.
n.d. Daddy's Bedtime Bird Stories. *12mo. col. pl.*

BONNET, Charles [1720–93].
1769. Contemplation de la Nature. 2nd ed. *2 vols.*

1779–83. Œuvres d'histoire naturelle et de philosophie de Charles Bonnet . . . *18 vols. 20 cm. front.* (*portr.*). *56 fold. pl. fold. tab. Neuchatel.*
Contents. t. 1. Traité d'insectologie.—t. 2. Observations diverses sur les insectes.—t. 3. Mémoires d'histoire naturelle.—t. 4. Recherches sur l'usage des feuilles.—t. 5–6. Corps organisés.—t. 7–9. Contemplation de la nature.—t. 10. Écrits d'histoire naturelle.—t. 11. Écrits et lettres d'histoire naturelle.—t. 12. Lettres sur divers sujets d'histoire naturelle.—t. 13–14. Essai analytique sur les facultés de l'ame.—t. 15–16. La palingénésie philosophique.—t. 17. Essai de psychologie.—t. 18. Écrits divers.

BONPLAND, A. J. A. *See* HUMBOLDT and BONPLAND, 1805–37.

BONONI, A.
1884–95. Avifauna Tridentina. 6 parte. *Rovereto.*

BOODE, Eduard.
1909. Die Sängerin der Nacht. *pp. 328. illust. Regensburg.*

BOOK ABOUT BIRDS. n.d. *See* ANONYMOUS.

(THE) BOOK OF BIRDS; intended for the amusement and instruction of young people.
1851. *See* ANONYMOUS.

(THE) BOOK OF NATURE STUDY. By PYCRAFT, W. P. (Wanting.)

(A) BOOK OF ORNITHOLOGY FOR YOUTH.
1832. *See* ANONYMOUS.

BOOTH, Edward Thomas [1840–90].
1881–7. Rough notes on the birds observed during twenty-five years' shooting and collecting in the British islands; with plates from drawings by E. Neale. *3 vols. folio. pl.* *London.*

1901. Catalogue of the cases of birds in the Dyke Road Museum, Brighton, giving a few descriptive notes and the localities in which the specimens were found. 3rd ed. *8vo. pp. xii+232. front. 23 pl. index.* *Brighton.*
A reprint of E. T. Booth's *Descriptive Catalogue*, with a few additions by A. F. Griffiths, who gives a biography of the author, description of additional cases, and an index. The first edition was issued in 1876, the second in 1896, and the fifth in 1927 (q.v.). The present copy has two autograph letters (inserted) from Mr. Griffiths to Dr. P. L. Sclater on matters connected with the museum.

1927. Catalogue of cases of birds in the Dyke Road Museum, Brighton. 5th ed. (With 31 illustrations.) *8vo. pp. xxvi+290. front.* (*portr.*). *30 pl. index.* *Brighton.*
An enlarged edition of that of 1901 with further notes by A. F. Griffiths on some additional cases added to the collection.

BORASTON, John Maclair.
1905. Birds by land and sea; the record of a year's work with field-glass and camera. *8vo. pp. xiv+(1)+281+(1). front. 51 pl. T. of c. index. London.*
A popular record of observations made by the author in the neighbourhood of Stratford, England, from September 1902 to September 1903.

1921. British birds and their eggs, with a new method of Identification. *8vo. pp. ix+(1)+301. front.* (*col.*). *135 pl.* (*col.*). *index.* *London.*
A popular guide to the birds of the British Islands, arranged according to a new plan, i.e. by grouping them under such headings as 'Black-and-White Birds', 'Ruddy-Breasted Birds', 'Trunk-Climbing Birds', etc., which the author claims has the obvious merit of presenting birds to the beginner as he himself sees them.

BORCHART, Johs.
n.d. Der Kanarienvogel; ein praktisches Handbuch über Naturgeschichte, Pflege und Zucht des Kanarienvogels. 27te verbesserte Auflage. *12mo. pp. 128. T. of c.* *Leipzig.*
Practical and very popular handbook for canary fanciers.

BORDEAUX.
1823–4. Le Musée d'Aquitaine. *3 vols.* (all pub.). (Periodical.)

BORDEAUX. SOCIÉTÉ DES SCIENCES PHYSIQUES ET NATURELLES.
1855–*date*. Mémoires. (Extraits des Procès-Verbaux), etc. First series **1855–75**; second series **1876–83**; third series **1884**–*date*. *8vo.* *Paris and Bordeaux.*

BORDEAUX. Société Linnéenne. (Founded 1818.)
1830, 1845, 1829 (1866). Bulletin d'histoire naturelle, etc. (Résumé des travaux, etc.—in tom. 3.) Tom. 1–3. *8vo.* *Bordeaux.*

1831–*date*. Actes. Tomes 4–6. Mélanges. Tomes 7–20. Comptes Rendus. Tomes 27– . Table . . . des Matières des dix premiers volumes, etc. There are also indexes to the second, third, and fourth series, with the last volume of each.

BORELLI, Giovanni Alfonso [1608–79].
1680–1. De motu animalium. *2 vols. 8vo. pl. Romae.*
This treatise (first edition) gives for the first time an explanation of the flight of birds based on the mechanical principle of the lever and the resistance of the air. It is an extremely rare volume, no edition being listed in the *Cat, Br. Museum (Nat. Hist.)*.
There is also an edition dated 1685 in the Blacker Library and another (1743) in the library of the London Zool. Soc.

1685. De motu animalium. Ed. altera, correctior et emendatior. *2 vols. 8vo. pl.* Vol. 1 has extra engr. t.-p. *Lugduni in Batavis.*
The second edition of this rare book on animal locomotion; the first appeared in Rome, dated 1680.

BORGGREVE, BERNARD.

1869. Die Vogel-Fauna von Norddeutschland; eine kritische Musterung der europäischen Vogel-Arten nach dem Gesichtspunkte ihrer Verbreitung über das nördliche Deutschland. *8vo. pp. 16+156. T. of c. index.* *Berlin.*

1878. Die Vogelschutzfrage, nach ihrer bisherigen Entwickelung und wahren Bedeutung mit besonderer Rücksicht auf die Versuche zu ihrer Lösung durch Reichsgesetzgebung und internationale Vereinbarungen. *12mo. pp. 142. T. of c.* *Berlin.*

A contribution to the protection of birds in their local and international relations. From the library of Prof. Cabanis.

1888. Die Vogelschutzfrage, etc. *pp. 180. Leipzig.*

Second edition of the original 1878 treatise.

BORINI, HENRY L.

1928. The modern food guide for cage-birds. A Text Book for experts as well as for beginners. *8vo. pp. 63+(1). 7 figs. T. of c. index.* *Brooklyn.*

A distinct improvement on the material usually published by current magazines and various books on this subject.

BORKHAUSEN, MORITZ BALTHASAR [1760–1806], and **others.**

1800–17. Teutsche Ornithologie; oder, Naturgeschichte aller Vögel Teutschlands in Naturgetreuen Abbildungen und Beschreibungen. *22 pts. in 1 vol. folio. 132 col. pl.* Herausgegeben Borkhausen, Lichthammer und Bekker dem jüngern [and afterwards] C. W. Bekker & Lembeke. *Darmstadt.*

This well-known but—even in the incomplete or 125-plate state—rare work was very irregularly issued as *Hefte*, and is generally a puzzle for cataloguers. The text is sometimes found without corresponding plates, that may be missing in quite large numbers from bound copies.

The present copy, whose illustrations are color-printed and then finished by hand, is believed to be complete and to show all the parts issued. Probably there was no original title-page; that of the present copy is the wrapper of the last or 22nd *Heft*, whose six plates make a total of 132.

The British Museum second copy (see the *Nat. Hist. Cat.* i. 202) is dated 1837–41, but that is surely an error.

A short account of the production of this great work is given on the reverse of the title-page. The concluding paragraphs read like the reports of similar predicaments in which publishers found themselves during the period 1914–21.

Note also that this is the first edition with the 'T'eutsche spelling.

BORLASE, WILLIAM [1695–1772].

1758. The natural history of Cornwall. *folio, pp. xix+326. 29 pl. (1 map fold.). T. of c. Oxford.*

An inclusive and early account of the Natural History of Cornwall.

BORRADAILE, LANCELOT ALEXANDER [1872–].

[**1923**]. Elementary zoology for medical students. (Oxford medical publications.) *8vo. pp. viii+378. 243 figs. T. of c. index.* *London.*

An account only of the types which are studied by students in preparation for first medical examinations. The principal part relating to birds will be found under embryology, pp. 331–6, and classification and evolution, pp. 349–58. Most of this matter is drawn from the author's larger work, *Manual of Zoology*, 1924, 4th ed.

1924. A manual of elementary zoology. 4th ed. *8vo. pp. xvi+671. front. 14 pl. 466 figs. T. of c. append. index.* *London.*

The first edition of this work appeared in 1912, a second in 1918, a third in 1920, and a fifth in 1926. The principal references to birds will be found in Chapter XIII, 'Reproduction and Sex', pp. 204–16, with a figure of the Argus Pheasant, Chapter XXIV, 'The Pigeon', pp. 436–57, and Chapter XXVII, 'Embryology', pp. 552–6, all three of the above with numerous figures in the text.

[**1926**]. A manual of elementary zoology. 5th ed. *8vo. pp. xvi+670. front. 15 pl. 468 figs. T. of c. append. index.* *London.*

Differs from the 4th edition in having considerable parts of Chapters I, XIII, and XXIX rewritten. An extra plate is also added and two new figures.

BORRER, WILLIAM [1814–98].

1891. The birds of Sussex. *8vo. pp. xviii+385. front. (col.). map (col.). index.* *London.*

This book consists mainly of field notes of the 297 birds recorded for the county.

BORY DE SAINT-VINCENT, JEAN BAPTISTE GEORGE MARIE [1780–1846].

1803. Essais sur les isles Fortunées et l'antique Atlantide; ou, Précis de l'histoire générale de l'archipel des Canaries. *4to. pp. 6+522. maps.* *Paris.*

1822–30. Dictionnaire Classique d'Histoire Naturelle. *17 vols. See also* AUDOUIN, J. V.

1832–6. Expédition scientifique de Morée. Section des sciences physiques. *3 vols. and (2 vols.). 4to and folio. atlas.* (Wanting.) *Paris.*

Vol. III of these important systematic reports is devoted to Zoology. Section 1 treats *Des Animaux vertébrés*, pp. 209, 55 col. pl., illust. text. Geoffroy Saint-Hilaire describes the mammals and birds; Bibron and Bory de Saint-Vincent the reptiles and fishes.

1835. Compendio d'erpetologia; o, d'istoria naturale dei rettili; tr. [from the Fr.] con aggiunte del dottore Guiseppe Balsamo. *pp. 8+251. pl.* *Milano.*

BOSGOED, DIRK MULDER.

1874. Bibliotheca ichthyologicae et piscatoria-catalogus, etc. *pp. 26+474.* *Haarlem.*

Chiefly Dutch text with, however, a preface and title in French. This useful work is an enlarged edition of the author's *Proeve eener ichthyologische bibliographie*, etc., 1868–71; the whole now superseded by Bashford Dean's monumental treatise.

BOSSCHE, GUILIELMUS VAN DEN.

1639. Historia medica, in qua libris IV. Animalium natura et eorum medica utilitas exacte & luculenter tractantur. *8vo. pp. 34+434. illust.* *Bruxellae.*

An early animal materia medica, in which many faunal forms are incidentally described.

BOSSI, LUIGI.

1822. Trattato delle malattie degli Uccelli, etc. *8vo.* *Milano.*

BOSTON JOURNAL OF NATURAL HISTORY.

1834–63. Vols. 1–7 (all pub.). Continued as Memoirs of Boston Society of Natural History.

BOSTON SOCIETY OF NATURAL HISTORY.

1915–*date*. Bulletin.

1878–1903? Guides for science teaching.

1862–*date*. Memoirs.

1906–14. Museum and literary bulletin.

1869–*date*. Occasional papers.

1841–*date*. Proceedings.

BOSTON ZOOLOGICAL SOCIETY.

1882–4. Quarterly Journal.

BOTTARD, ALPHONSE [1854–1926].

1889. Les poissons venimeux; contribution à l'hygiène navale. *4to. pp. 198. illust.* *Paris.*

Bibliography, pp. 195–8. Presentation copy from author, with autograph.

BOUBIER, MAURICE.

1922. L'Oiseau et son Milieu. *Paris.*

1925. L'Évolution de l'Ornithologie. *1 vol. 12mo. pp. 2+308. index.* *Paris.*

An admirable, brief, and concise history of the progress of ornithology to the present day.

926. Les Oiseaux. *10 pl.* *Paris.*

BOUCARD, ADOLPHE.

1876. Catalogus avium hucusque descriptorum. *21 cm. pp. xiv, 352. T. of c.* *London.*

There are 2,456 genera and 11,031 species listed in this catalogue, which is arranged after his original ideas by the author. A French edition of the same date exists, practically identical with the present copy, a presentation to P. L. Sclater by the compiler.

1878. On Birds Collected in Costa Rica. *8vo. col. pl.*

1889. Catalogue des oiseaux de la collection Riocour. *Tours.*

1893–5. Genera of humming birds, being also a complete monograph of these birds. *8vo. pp. xiv+412. 2 indexes.* *London.*

A descriptive catalogue of the humming birds. The work was issued in parts as a supplement to the author's periodical, *The Humming Bird*, vols. II–V, forming nearly the whole of the last volume of that work. The first part was issued in 1892 and the last not later than Xmas 1895.

1894. Travels of a Naturalist.

A rare California item.

[? **1897–1900**]. [Catalogus aviarum.] Lacks t.-p. *8vo. pp. 352.*

This interesting and apparently unique copy of a well-known catalogue of birds has the chapter heading as above, *Catalogus aviarum* (*sic*), and p. 1 differs from the Brit. Mus. (1876) copy and from the same in the McGill library. It was probably a late printing withdrawn from circulation because of errors. The copy in hand has inserted an A. L. S., by Dr. Charles Richmond, who presented the work to the E.S.W. Library, commenting on this peculiar variant.

BOUDAREL, A. and **DIDIER,** R.

1921. L'art de la taxidermie au 20e siècle; &c. *See* DIDIER, R.

BOUGAINVILLE, LOUIS ANTOINE DE [1729–1811].

1771. Voyage autour du monde, 1766–69. *sq. 4to. pp. [6]+[420]. maps.* *Paris.*

De Bougainville served under Montcalm at Quebec, afterwards becoming a naval officer. As an extract from Hawkins' *Picture of Quebec* written on the fly-leaf of the present copy asserts, he 'will be placed by impartial posterity in the first rank of circumnavigators'.

1772. Voyage autour du monde par la frégate du roi La Boudeuse, et la flûte L'Étoile en 1766–69. 2e éd. *2 vols. maps.* *Paris.*

1772. Supplément au voyage; ou, Journal d'un voyage autour du mond fait par Sir Joseph Banks et D. C. Solander, Anglois, en 1768–71; tr. de l'Anglois. *pp. 16+262. illust.* *Paris.*

Remarks on the birds of the Falkland Islands will be found at p. 114 in the first volume.

1772–93. Voyage autour du monde, par la frégate du roi la Boudeuse, et la flûte l'Étoile; en 1766, 1767, 1768 & 1769. 2. éd., augm. . . . *3 vols. 8vo. fold. pl. (incl. maps, plans).* *Paris.*

Another printing of the *editio princeps*, 1772.

BOUGAINVILLE, LOUIS ANTOINE DE, *Baron. The Younger.*

1837. Journal de la navigation autour du globe de la frégate la Thétis et de la corvette l'Espérance pendant les années 1824–26. *2 vols. and atlas. illust. tab.* *Paris.*

Description of *Callocephalon australe*, the red-crowned parrot, at p. 311, vol. 2, by R. P. Lesson, who is the writer of the natural history part of the work beginning at p. 299, vol. 2. Superb illustrations of the male and female of this cockatoo on Plates 39–40.

BOUGEANT, *Rev.* GUILLAUME HYACINTHE [1690–1743].

1739. Amusement philosophique sur le langage des bestes. *12mo. pp. 2+157+7.* *Paris.*

A curious and rare book (bestiary) on the comparative physiology and sociology of birds and other animals. The author was obliged (in an appended letter) to apologize to the Church for some statements offensive to ecclesiastic sensibilities.

1740. A philosophical amusement upon the language of beasts and birds. Written originally in French by Father Bougeant, a famous Jesuit; now confined at La Flèche on account of this work. The 2nd ed. corrected. *crown 8vo. pp. (2)+66. 2 figs.* *London.*

A curious little work in which the author sets forth his reasons for believing that beasts and birds speak. The work is written in three parts: (1) Of the understanding of beasts; (2) Of the necessity of a language between beasts; (3) Of the language of beasts. For this apparently harmless dissertation the author was sent to prison. There appears to be no copy in the British Museum, nor can the date of the first issue be definitely stated.

BOULENGER, EDWARD GEORGE [1888–].

1913. Reptiles and Batrachians. *8vo. pp. 14+278. pl.* *London and New York.*

Highly desirable treatise by a world authority.

[**1926**]. A naturalist at the Zoo, . . . with 34 illustrations by L. R. Brightwell. *8vo. pp. 206. front. 33 pl.* *London.*

The habits and characters of some of the most interesting birds to be found in the London Zoo occupy pp. 123–58, the rest of the book being given up to accounts of the mammals, reptiles, fishes, and insects.

[**1927**]. Animal mysteries. Illust. by L. R. Brightwell. *8vo. pp. 214. front. 23 pl.* *London.*

Nature still presents us with a formidable array of unsolved mysteries, a few of which are touched upon in this volume. Birds figure throughout its pages under such headings as travel and migration, longevity, architects, pugilists, freaks, sacred, music, evolution, nursing fathers, etc., with four plates of illustrations.

[**1927**]. A naturalist at the dinner table. *12mo. pp. 160.* *London.*

1927. The Aquarium Book. *8vo.* *London.*

[*ca.* **1928**]. Living Animals of the World in Picture and Story. *4 vols. 4to. 2,000 illust. 50 col. pl.* *London.*

This is a popular work but consisting of contributions by various well-known scientific writers on zoology.

BOULENGER, GEORGE ALBERT [1858–].

1890. *See* BLANFORD, W. T.

1897–9. *See* FITZGERALD, E. A.

1897–8. The Tailless Batrachians of Europe. *2 pts. 8vo. pp. 3+376. 24 col. pl. 6 maps. text-figs.* *London.*

A notable treatise, Nos. 74 and 75 of the Ray Society publications.

1898–1902. *See* WILLEY, A.

1898–1902. Matériaux pour la Faune du Congo. Poissons nouveaux. Vol. I. *56 pl. additions. 10 pl.*

[**BOULENGER,** G. A. (*contd.*)]

1898–1907. *See* ANDERSON, JOHN, *editor.*

1902. *See* BR. MUS. (NAT. HIST.) 'SOUTHERN CROSS'.

1903–7. *See* ANNANDALE and ROBINSON.

1904. Fishes. Cambridge Natural History, vol. VII. *London.*

One of the best of this famous series.

1907. List of the Fishes . . . in the River Gambia. (Wanting.)

This contribution to the Budgett memorial volume is a valuable treatise on the ichthyology of West Africa.

1907. The Fishes of the Nile. *2 vols. 4to.*

1907–*date*. *See* BR. MUS. (NAT. HIST.) VOYAGE 'DISCOVERY'.

1909. *See* BR. MUS. NAT. HIST.

1910. Les Batraciens et principalement ceux d'Europe. *8vo. pp. 305. Paris.*

1912. *See* LYDEKKER [and others].

1913. The Snakes of Europe. *8vo. pp. x+296. London.*

1914–16. *See* OGILVIE-GRANT, WM. R., *editor.*

1920–1. Monograph of the Lacertidae. *2 vols. 8vo.* Vol. I. *pp. x+325.* Vol. II. *pp. viii+451. London.*

BOULGER, G. S. [1894–95.]

1894–5. The country month by month. *See* OWEN, J. A.

BOULOGNE-SUR-MER; Station Aquicole.

1892–1904. Annales.

1905–14. Annales. New series. (Wanting.)

BOURCIER, JULES.

1874. Collection typique d'oiseaux mouches (Trochilidés). *8vo. pp. 12. Paris.*

BOURGET.

1910. Beaux Dimanches. Observations d'histoire naturelle. *illust. Lausanne.*

BOURJOT SAINT-HILAIRE, ALEXANDRE [1801–86].

1837–8. Histoire naturelle des perroquets, troisième volume (supplémentaire), pour faire suite aux deux volumes de Levaillant, contenant les espèces laissées inédites par cet auteur ou récemment découvertes. Ouvrage destiné à compléter une monographie figurée de la famille des psittacidés, le texte renfermant la classification, la synonymie et la description de chaque espèce; suivi d'un index général des espèces décrites dans tout l'ouvrage. Les figures lithographiées et coloriées avec soin par M. Werner. *folio. pp. 42+220. 111 col. pl. index. Paris.*

The titles describe accurately this beautiful monograph on parrots, with many fine hand-colored plates.

BOURNE, GILBERT CHARLES [1861–].

1900–2. An introduction to the study of the comparative anatomy of animals. *2 vols. illust. London.*

A valuable treatise on the subject, that passed through several editions.

1908. An introduction to the study of the comparative anatomy of animals. 2nd ed. *12mo. illust. London.*

1919. Comparative anatomy of animals. *2 vols.*

Another edition of a useful work.

BOURNEMOUTH NATURAL SCIENCE SOCIETY.

1908–*date*. Proceedings.

BOURNS, FRANK SWIFT and **WORCESTER,** D. C.

1894. Preliminary notes on the birds and mammals collected by the Menage scientific expedition to the Philippine Islands. *4to. pp. 64.* (Minnesota academy of natural sciences, vol. 1, no. 1.) *Minneapolis.*

1898. *See* WORCESTER, D.C.

1906. A hand-list of the birds of the Philippine Islands. *See* McGREGOR, RICHARD C.

BOUSSUETUS, FRANCISCUS [1520–72].

1558. De natura aquatilium carmen in universam G. Rondeletti, quam de piscibus marinis scripsit historiam. *2 vols. 4to. illust. Lugduni.*

BOUTEILLE, HIPPOLYTE.

1843. Ornithologie du Dauphiné. *2 vols.*

BOUVET, E. [1890.] *See* MOUY, G.

BOUVIER, AIMÉ.

1875. Afrique occidentale. Catalogue géographique des oiseaux recueillis par Alfred Marche et Victor de Compiègne dans leur voyage, 1872–74. *8vo. pp. 42.* Privately printed. *Paris.*

A list, with their geographic distribution, of a collection of African birds. The copy in hand is an autographed presentation to Osbert Salvin by the author. From the Godman library.

BOVALLIUS, CARL ERIK ALEXANDER [1849–1907].

1887. Resa i Central-Amerika, 1881–83. *2 vols. 8vo. pp. 508. 208 illust. pl. maps. Upsala.*

BOWDEN, JOHN.

1869. The naturalist in Norway; or, Notes on the wild animals, birds, fishes, and plants of that country. With some account of the principal salmon rivers. *8vo. pp. xii+(2)+263. front. (col.). 7 pl. (col.). T. of c. London.*

The portion of this work devoted to birds will be found in Chapters XIII–XXVI.

BOWDICH, THOMAS EDWARD [1791–1824].

1821. An analysis of the natural classification of mammalia, for the use of students and travellers. *8vo. pp. 118. 15 folding lith. pl., with explanatory captions. index. portr. Paris.*

Written by the 'Conductor of the Mission to Ashantee'. The figures and much of the text are copied from Cuvier. Remarks on the orders are appended by H. Kuhl. Bound up with the author's *An Introduction to the Ornithology of Cuvier.*

1821. An introduction to the Ornithology of Cuvier, for the use of Students and Travellers. *8vo. pp. 90. 21 lith. pl. (264 figs.). index. Paris.*

According to the preface, the text is translated from Cuvier arranged in tabular form, illustrated by figures and explained by notes. There are two title-pages, slightly different, one with Pl. I attached. The present copy belonged to Wm. Yarrell, with his autograph and address.

1825. Excursions in Madeira and Porto Santo, during the autumn of 1823, while on his third voyage to Africa. To which is added, by Mrs. Bowdich, I. A narrative of the continuance of the voyage to its completion . . . II. A description of the English settlements on the river Gambia. III. Appendix: containing zoological and botanical descriptions, and translations from the Arabic. *4to. pp. xii+278. front. (col.). 21 pl. (3 col., 3 fold.). 3 figs. T. of c. append.* *London.*

BOWLES, JOHN HOOPER and **DAWSON,** W. L.
1909. The birds of Washington, &c. *See* DAWSON, W. L.

BOXBERGER, LEO. VON.
1909. Das deutsche Vogelschutzgesetz vom 30 Mai 1908 nebst den das Flugwild betreffenden Bestimmungen der Preussischen Jagdordnung vom 15 Juli 1907. *12mo. pp. 57. index.* *Berlin.*

A summary of Prussian laws relating to bird protection to 1909.

BOYCE, WILLIAM DICKSON [1848–1923].
1922. Australia and New Zealand. *8vo. pp. (2)+v–xvii+(1)+381. front. (portr.). 296 figs. (20 birds). 1 map. (col. fold.). T. of c.* *New York.*

The notes of a newspaper reporter. Chapter V contains an account of the birds of Australia. New Zealand birds are treated in Chapter II, pp. 269–74.

BOYD, JULIA. Bewick Gleanings, etc. *See* BEWICK, THOMAS, 1886.

BOYLE, E. V. B.
1900. In praise of birds. *8vo. pp. 24.* [*London.*]

BOYSON, V. F. and **VALLENTIN,** RUPERT.
1924. The Falkland Islands. *8vo. pp. xii+(4)+13–414. front. 23 pl. 1 map (fold.). T. of c. append. bibliogr. index.* *Oxford.*

Divided into four parts: Pt. I, History; Pt. II, Industries; Pt. III, Geophysical notes; Pt. IV, Zoology. The birds by Rupert Vallentin will be found in Pt. IV, pp. 283–335, with six illustrations, and a bibliography, pp. 396–7.

BOY'S OWN BOOK OF SPORTS, BIRDS AND ANIMALS. 1848. *See* ANONYMOUS.

BRABOURNE, WYNDHAM WENTWORTH KNATCHBULL-HUGESSEN (*3rd Baron*) [1855–1915] and **CHUBB,** CHARLES.
[**1912–17**]. The birds of South America. *2 vols. 8vo and 4to.* Vol. I, *pp. xix+(1)+504. 1 map (col.). 2 indexes.* Vol. II, *pp. xi+(1). 38 pl. (col.).* *London.*

Originally, this work was to have comprised 16 volumes with 400 plates, but the death of Lord Brabourne, whilst fighting at Neuve-Chapelle in 1915, put an abrupt stop to the work. Vol. I, issued in December 1912, contains his valuable list of the birds, by far the most complete yet issued. The series of 38 beautiful plates intended for this work and contained in vol. II was issued subsequently, under separate authorship and title, as *Illustrations of the Game Birds and Waterfowl of South America*, by H. Grönvold, 1917 (q.v.). Both of these volumes in the McGill library are autographed, presentation copies.

BRACK, WENCESLAUS. *See* VOCABULARIUS RERUM.

BRADFORD, CHARLES BARKER.
[**1901.** The wild fowlers; or Sporting scenes and characters of the great lagoon. *16mo. pp. (6)+175. front. 1 pl. 32 figs. T. of c.* *New York.*

A book for sportsmen

BRADLEY, S. M. *See* SCIENCE LECTURES, 1883–5.

BRADY, ANTONIO [1811–81].
1874. Catalogue of the Pleistocene vertebrata from the neighbourhood of Ilford, Essex, by William Davies. *8vo. pp. xxvii+74. front. 4 maps (3 sect.). append.* *London.*

The only remains that were found of the class Aves were a right humerus of an aquatic bird of the duck family (length 5.5 in.) and the upper half of a radius (length 2.7 in.).

BRAESS, MARTIN.
1901. Unsere gefiederten Freunde. Eine Sammlung ornithologischer Vorträge. *8vo. pp. 4+175. T. of c.* *Leipzig.*

A series of popular chapters on ornithologic subjects.

1903. Das heimische Vogelleben im Kreislauf des Jahres. *8vo. pp. 8+222. 1 col. pl. and numerous other illust. index.* Being pt. 1 of *Das heimische Tier- und Pflanzenleben im Kreislauf des Jahres.* *Dresden.*

This popular treatise on the seasonal life of birds was issued in six parts as part of a larger work. The present copy (in its original covers) is complete, from the Reichenow collection.

1914. Aus dem Vogelleben unserer Heimat; ornithologische Plaudereien. *8vo. pp. 8+211. index.* *München.*

Interesting and instructive chapters on bird lore and bird life. From the library of Prof. Reichenow.

[**1914**]. Heimatliches Vogelbuch; Beobachtungen unsrer heimatlichen Vogelwelt in freier Natur. *pp. 8+216. illust.* (Lebensbücher der Jugend, Bd. 25.) *Braunschweig.*

BRAISLIN, W. C.
1907. List of Birds of Long Island, N.Y. *pp. 106.* *New York.*

This important list also appears in B. F. Thompson's *History of Long Island* (q.v.).

BRAMBELL, F. W. ROGERS.
1930. The Development of Sex in Vertebrates. *8vo. pp. 16+261. 24 pl. 25 figs. in text. index.*

A scientific treatise on the subject with an Introduction by Julian S. Huxley.

BRANDER, A. A. DUNBAR.
1923. Wild Animals in Central India. *8vo. pp. 16+296. illust. index.*

A popular account of many Indian mammals, a systematic list of which (with the trivial names) is given in the Appendix.

BRANDT, JOHANN FRIEDRICH [1802–79].
1835. Mammalium exoticorum novorum vel minus rite cognitorum Musei Academici Zoologici descriptiones et icones. *pp. 2+106. 19 pl. (3 col.).* Author's repr. from *Acad. Imp. Sci. St. Pétersbourg. Mém.* Ser. VI, tom. 2 & 3. *Petropoli.*

1835. Prodromus descriptionis animalium ab C. H. Mertensio in orbis terrarum circumnavigatione observatorum. Fascic. 1. *4to. pp. 75. 6 tab. col.* *Petropoli.*

No more published.

1836. Descriptiones et icones avium Rossicor. nov. Fasc. I. (unic.). *4to. 6 tab. col.* *Petrop.*

Second printing of the first and only part published of a projected work on the birds of Russia.

[**1837**]. Beiträge zur Kenntniss der Naturgeschichte der Vögel, mit besonderer Beziehung auf Skeletbau und vergleichende Zoologie. Ab-

[**BRANDT,** J. F. (*contd.*)]

handl. 1–6. *folio. pp.* [*156*]. *20 pl.* (Excerpt from *Acad. imp. Sci. St. Pétersbourg. Mém.* ser. vi, tom. v, pt. 2.)

This copy of Brandt's osteology of birds (1837) was presented by the late Professor Alfred Newton to his friend and pupil Mr. Manson-Bahr, author of the *Birds of Fiji*, and by him given to Dr. Casey A. Wood.

1839. Beiträge zur Kenntniss der Naturgeschichte der Vögel. Abhandl. 1–6. *4to. pp. 6+154. 19 pl.* (All pub.) Erste Lieferung. (Repr. from *Acad. imp. sci. de St. Pétersbourg. Mémoires*, ser. 6, vol. 5, pt. 2.) *St. Petersburg.*

A study of the comparative anatomy of birds in six parts, probably all that appeared. The monograph is devoted almost entirely to avian osteology and is admirably illustrated. The copy in hand is separately entitled and bound—from the P. L. Sclater collection.

1839. Spicilegia ornithologica exotica. Fascicules I. *folio. pp. 37. 5 pl.* No more published. Repr. from *Mémoires de l'Acad. impériale des sciences de St. Pétersbourg*, sér. VI, t. V, 2 ptie. *Petropoli.*

A reprint of the first fascicle of the complete paper.

[**1847**]. Fuligulam (Lampronettam) Fischeri novam avium Rossicarum speciem praemissis observationibus ad Fuligularum generis sectionum et subgenerum quorundam characteres et affinitates spectantibus. *folio. pp. 19. 1 pl.* (*col.*). *Petropoli.*

A separate, specially paged imprint of the author's paper of the same title, occupying pp. 1–16 of the *Mémoires de l'Académie Impériale des Sciences de St. Pétersbourg*, Ser. VI, vol. VIII, pt. 2, February 1848. It was published in this separate form in advance of the Journal. New generic and specific names appear in the paper.

BRASHER, Rex.

1930. Birds and trees of North America. *12 vols. 70 col. pl. in each vol.* Paintings of all the birds of the North American continent. 100 sets published. (Wanting.) *Kent, Conn., U.S.A.*

This magnificent series of colored drawings is described by Dr. Cushman Murphy as follows: 'I believe that no such project has been attempted since the time of Audubon, and of course the number of species and forms of North American birds known to-day is more than double that recognized at the time of the pioneer painter-ornithologist. Mr. Brasher's nine hundred paintings include some twenty-five hundred figures, showing the plumage differences of the sexes in adult birds, as well as variations due to age and season. The great majority of the birds are painted life-size, and all are shown associated with proper vegetation, both birds and plants being drawn as artistically as is consistent with scientific accuracy.'

BRASIL, Louis.

1913. Genera Avium. *See* WYTSMAN, P., 1913–14.

1914. Les oiseaux d'eau, de rivage et de marais de France, de Belgique & des îles Britanniques. *8vo. pp. 338. 142 text-figs. index. Paris.*

An account, written especially for 'sportsmen', of 223 water and shore birds, with short descriptions of the species, their habits, etc. The woodcuts are excellent. The present copy is from the Godman library in the original wrappers.

BRAUER, August.

1909–*date*. Die Süsswasserfauna Deutschlands, etc. *8vo.* 19 Hefte. *Jena.*

The title is somewhat misleading as articles on the vertebrates of middle Europe are given. In Heft 1, pp. 4+206, with text-figs., P. Matschie describes the mammalia, A. Reichenow the aves, G. Tornier the reptiles and amphibia, and P. Pappenheim the pisces.

BRAYTON, A. W. *See* OHIO, STATE OF, 1882. Mammals.

BRAZIER, John. *See* AUSTRALIAN MUSEUM, 1892.

BRAZIL. Commissão de Linhas Telegraphicas . . . de Matta Grosso ao Amazonas.

(1914)–16. Estudo e reconhecimentos. Vol. I. *4to. pp. 363+29. 35 pl. 1 map. figs. in text.* (Wanting.) *Rio de Janeiro.*

This otherwise extensive study of the flora and fauna of Brazil has so far only one article on vertebrates, issued in 1914, viz. Mammiferos, pp. 49+3, 25 pl., illustrations in the text. An *Annexo* (Nos. 1–6) to the whole report was issued in 1909–16.

BREADY, Marcia Brownwell.

1929. The European Starling on its westward way, etc. *8vo. pp. 26+141. col. front. illust. N.Y.*

A history of the steady progress of *Sturnus v. vulgaris* from the release of 80 birds in N.Y. Central Park 50 years ago to their invasion and enormous increase throughout most of North America from Canada to Florida. Although carelessly written, evidently by an amateur, it has many points of interest, especially observations about the varied musical song of the species.

BRECK, Edward [1861–].

1910. Wilderness pets at Camp Buckshaw. *8vo. pp. xi+(1)+239+(1). front. 15 pl. 14 figs. T. of c. London.*

A popular account of the doings of wild pets, amongst which were young Great black-backed Gulls and Loons, with illustrations of episodes in their lives.

BREDER, Chas. M.

1929. Field Book of Marine Fishes of the Atlantic Coast from Labrador to Texas. *12mo. pp. 38+332. 8 col. pl. 403 text illust. N.Y.*

A useful little pocket book for field work, with identification key and bibliography.

BREDSDORFF, J. H.

1817. Classificatio Rerum Naturalium. *Hafniae.*

BREE, Charles Robert [1811–86].

1859–63. A history of the birds of Europe, not observed in the British Isles. *4 vols. 4to. col. front. col. pl. T. of c.* Bibliography, vol. 4, pp. [245]–8. Vol. I. 1859. *pp. 1+xv+1+207. 60 col. pl. T. of c.* Vol. II. 1860. *pp. iv+203. 60 col. pl. T. of c.* Vol. III. 1862. *pp. iv+247. 60 col. pl. T. of c.* Vol. IV. 1863. *pp. xvi+250. 58 col. pl. T. of c. index. List of European birds. London.*

This admirable descriptive treatise was issued at irregular intervals in (about) 60 parts. It furnishes the synonymy, generic characters, distribution, and habits of those birds of Europe seen outside the British Isles.

1875–6. A history of the birds of Europe, not observed in the British Isles. 2nd ed. enl. *5 vols. 4to. col. pl. T. of c.* Vol. I. 1875. *pp. ix+3+150. 54 pl.; 53 col. T. of c.* Vol. II. 1875. *pp. iv+471. 53 col. pl. 1 fig. in text. T. of c.* Vol. III. 1875. *pp. iv+176. 50 col. pl. T. of c.* Vol. IV. 1875. *pp. iv+180. 51 col. pl. 1 fig. in text. T. of c.* Vol. V. 1876. *pp. iv+175. 45 col. pl. 2 text-figs. T. of c. general index. London.*

An enlarged and corrected edition, with an amended 'List of European Birds' and a bibliography. See note on first edition, 1859–63.

BREHM, Alfred Edmund [1829–84].

1861. Das Leben der Vögel. Dargestellt für Haus und Familie. *4to. pp. 20+707. 27 col. pl. T. of c. index.* Issued in parts. *Glogau.*

An *édition de luxe* of this well-known but scarce first edition on popular ornithology. The above copy (in the original tinted covers) is from the Cabanis-Reichenow collection. The author, a famous ornithologist, has published numerous works on avian life, the majority of which have been many times translated and reprinted.

1864–9. Illustrirtes Thierleben, etc. *6 vols. 8vo. Hildburghausen.*

This is the six-volume printing of a very popular history of animal life that has been widely translated and published in many editions.

1867. Leben der Vögel. 2te Aufl. *Glogau.*

[1869–73]. Cassell's book of birds from the text of A. E. Brehm, by Thomas Rymer Jones. *4 vols. 40 col. pl. 420 text-figs. T. of c. index.*

This amended translation with notes of a portion of Brehm's famous *Illustrirtes Thierleben* is generally issued undated. There are two copies in the E.S.W. Library, one published in four volumes, as an *édition de luxe*, with decorated covers; the other bound in two vols. Collation of the four volumes: Vol. I, *pp. viii+312. 10 col. pl. 111 text-figs.* Vol. II, *pp. viii+320. 10 col. pl. 112 text-figs.* Vol. III, *pp. viii+312. 10 col. pl. 112 text-figs.* Vol. IV, *pp. viii+312. 10 col. pl. 85 text-figs. London and New York.*

1871–4. Bird-life; being a history of the bird, its structure, and habits, together with sketches of fifty different species. Tr. from the German by H. M. Labouchere and W. Jesse. *8vo. pp. xxvi+898. 11 col. pl. (incl. front.). T. of c. index.* Issued in parts.

One of several translations of Brehm's *Das Leben der Vögel.*

1872–6. Gefangene Vögel. Ein Hand- und Lehrbuch für Liebhaber und Pfleger einheimischer und fremdländischer Käfigvögel. *2 vols. 4to. T. of c. indexes.* Vol. I, *3 pts. pp. viii+626+2. 2 col. pl.* Vol. II, *1 pt. [all]. pp. iv+827. 2 col. pl. Leipzig.*

This popular work on cage-birds, etc., is the product of some dozen hands, among them Baldamus, Cabanis, *et al.* It ranks among the first of its class as a German handbook.

1890–3. Illustrirtes Thierleben, etc. Dritte Auflage von E. Pechuel-Loesche. *10 vols. 8vo. illust. Leipzig.*

This is one of the most elaborate and best illustrated semi-popular treatises on animal life ever issued. The mammals (vols. I–III), birds (IV–VI), and fishes (VIII) are edited by Pechuel-Loesche and W. Haacke; the reptiles and amphibia by P.-L. and O. Boettger.

1895. Animals of the World. *Chicago.*

An English translation of the well known *Thierleben*, from the third German edition.

1896. From the North Pole to the Equator. Tr. by M. E. Thomson. *8vo. London.*

1911–13. Die Vögel, Neubearbeitung von William Marshall, vollendet von F. Hempelmann und O. zur Strassen. *4 vols. 4to. T. of c. index.* From Brehm's *Tierleben*, vols. 6–9. Vol. I, *pp. viii+498. 36 col. pl. 100 figs. in text.* Vol. II, *pp. xiv+492. 39 col. pl. 85 figs. in text.* Vol. III, *pp. xii+472. 32 col. pl. 85 text-figs.* Vol. IV, *pp. xvi+565+568. 40 pl. (27 col.). 9 double plates (photos), 2 plates of eggs, and 3 maps. Leipzig.*

This excellent treatise, although retaining the popular style and most of the original text of the author, has been fully brought up to date by the editors.

1911–18. Allgemeine Kunde des Tierreichs. (O. L. zur Strassen.) 4th ed. *13 vols. 4to. 3,231 pl. and text-figs. (279 col.). Leipzig.*

This is a late and enlarged edition of Brehm's *Tierleben*, with hundreds of colored and plain illustrations and over 3,000 pages of descriptive text.

1924. Das kleine Brehm. Das ges. Tierreich aus Brehm's Tierleben . . . M. Kahle. *8vo. 116 figs. 29 pl. (4 col.). Berlin.*

n.d. Merveilles de la nature. *15 vols.*

A complete French edition, with notes, of the author's *Tierleben.*

n.d. Les oiseaux. Ed. Française revue par Z. Gerbe. *2 vols. T. of c. indexes.* (From Merveilles de la nature: l'homme et les animaux, 13 vols.) Vol. I, *pp. xxvi+790+1. 19 pl. 215 figs. in text.* Vol. II, *pp. [1]+905+1. 20 pl. 205 figs. in text. Paris.*

The ornithological volumes of Brehm's *L'homme et Les Animaux* must be rarer than the other series as 'Les Oiseaux' is not mentioned in any of the ordinary catalogues. The present copy, in the Blacker Library, appears to be mostly a French translation of the German text with, however, considerable additions by the able editor, Z. Gerbe.

BREHM, Christian Ludwig [1787–1864].

1820–2. Beiträge zur Vögelkunde in vollständigen Beschreibungen mehrerer neu entdeckter und vieler seltener, oder nicht gehörig beobachteter deutscher Vögel, mit fünf Kupfertafeln von C. L. Brehm und [Wilhelm Schilling]. *3 vols. 12mo. Neustadt-an-der-Orla.*

This is a fundamental work for the study not only of German ornithology but of ornithology in general.

1823–4. Lehrbuch der Naturgeschichte aller europäischen Vögel. *2 vols. 12mo. col. front.* Vol. I, *pp. xii+416. 1 col. pl.* Vol. II, *pp. viii+417+1047. index. Jena.*

An important work for the student, since several new species of European birds are described. The copy in hand is part of the Cabanis-Reichenow collection.

1831. Handbuch der Naturgeschichte aller Vögel Deutschlands. *8vo. col. pl. Ilmenau.*

A classic treatise on mid-European avifauna.

1836. Der Vogelfang. *8vo. pp. 4+158. pl. and figs. in text. index. Leipzig.*

Extracted from the *Allgemein. Encyclopädie d. ges. Land- u. Hauswirt. d. Deutschen.* A Register at the end has been added.

1842–55. Monographie der Papageien; oder, Vollständige Naturgeschichte aller bis jetzt bekannten Papageien mit getreuen und ausgemalten Abbildungen, im Vereine mit andern Naturforschern. Hefte 1–10, 12–14. *Jena.*

Lacking Heft 11 of 14. A well written and well illustrated treatise on parrots.

1855. Der vollständige Vogelfang; eine gründliche Anleitung alle europäischen Vögel zu fangen, mit besonderer Berücksichtigung der Vogelstellerei der Franzosen und Afrikaner. *8vo. pp. xxviii+416. 2 pl. index. Weimar.*

An important and early classic; a descriptive list of the Birds of Europe interesting to the research student on account of the mention of species new to science. It is also a handbook for the dealer and huntsman as it describes the means of trapping birds of various kinds.

1865. Kanarienvögel, Sprosser, etc. *7 pl. Weimar.*

1866. Verzeichniss der nachgelassenen Sammlung (meist) europäischer Vögel. *8vo. pp. 15. [Hamburg.]*

A list of 6,973 bird skins in the collection of Ch. L. Brehm under their systematic names, representing in all 673 species, mostly of European birds.

1872. Vogelhaus u. seine Bewohner. 3 Aufl. *Weimar.*

n.d. Die Eier der Europaeischen Voegel. Mit einer Beschreibung des Nestbaues gemeinschaftlich bearbeitet mit L. Brehm, &c. *folio.* *See* BAEDEKER, F. W. J.

BREMEN. Geographische Gesellschaft.

1873–4. Die zweite deutsche Nordpolarfahrt in den Jahren 1869 und 1870, unter Führung des Kapitan Karl Koldewey. *2 vols. 4to. illust. portr. pl. maps. Leipzig.*

BREMEN. Naturwissenschaftl. Verein zu Bremen.

1864–*date.* Abhandlungen (u. Jahresbericht mit Index).

BRENCHLEY, JULIUS LUCIUS [1817?–73].

1873. Jottings during the cruise of H.M.S. Curaçoa among the South Sea Islands in 1865. *8vo. pp. xxviii+487. front. (col. fold.). 59 pl. (44 col., 21 birds). 1 map (col. fold.). 37 figs. T. of c. index.* *London.*

Jottings made whilst a guest on board the 'Curaçoa', the natural history notices being written by various specialists from the collections of the author. The notice relating to the birds concerns only those that are new, or especially rare to science, and has been written by G. R. Gray, with 21 beautifully colored plates by J. Smit.

BRENTANO'S AQUATIC MONTHLY AND SPORTING GAZETEER. *See* AQUATIC MONTHLY AND NAUTICAL REVIEW.

BRESLICH, W. and **KOEPERT,** OTTO.

1893. Bilder aus dem Tier- und Pflanzenreiche für Schule und Haus. *8vo. pt. 2.* *Altenburg.*

CONTENTS. Vögel, Reptilien, Amphibien.

These are word-pictures of a number of familiar birds, ranging from eagles to canaries and ostriches. There are references to folk-lore and superstitions regarding the healing powers of some of the birds, especially the magpie and the crossbill.

BRETSCHER, KONRAD.

1915. Der Vogelzug im schweizerischen Mittelland in seinem Zusammenhang mit den Witterungsverhältnissen. *folio. pp. [46]. 3 fold. tables.* Repr. from Schweizerische naturforschende Gesellschaft. Neue Denkeschriften, vol. 51, Abh. 2. *Zürich.*

Author's edition of a brochure on avian migration in the interior of Switzerland as affected by weather conditions.

BREUGEL, H. G. v.

1794–6. Naspooringen aangaande de oönlogie of eierkunde en de oorspronkel. voortteeling v. menschen en beesten. *pp. 584.* *Dordr.*

It is said of this rare treatise that it is a contribution to 'de voogeleieren, de hoender-eieren in 't bijzonder, natuurl. broeding d. eieren d. de vogels zelve, de konstige uitbroeding, enz'.

BREWER, THOMAS MAYO [1814–80].

1854. *See* ALEX. WILSON'S AMERICAN ORNITHOLOGY.

1857. Smithsonian contributions to knowledge. North American oölogy; being an account of the habits and geographical distribution of the birds of North America during their breeding season; with figures and descriptions of their eggs. Part 1. *4to. pp. (2)+viii+132. 5 pl. (col., 76 figs.). T. of c. addend. index.* *Washington.*

Published in June 1857, separately, as above. Later it was reprinted and published with the same pagination, but with the second title, only, in vol. XI of the *Contributions*, dated 1859. The plates in the latter are not colored. There are several errors in the names of certain eggs figured, which have been noted by Coues. The work was never completed. Enclosed in a pocket at the end of the volume is a photograph of a set of Duck Hawk's eggs with other sketches.

[1859]. Smithsonian contributions to knowledge. North American oölogy. Part 1.—Raptores and Fissirostres. *folio. pp. viii+132. 5 pl. (76 figs.). T. of c. addend. index.* *[Cambridge?]*

This is the reprint with the same text and pagination as the first issue, 1857 (q.v.), but with the second title only, and the plates plain instead of colored. There is no place of publication on the title-page.

******, BAIRD,** S. F., and **RIDGWAY,** R.

1874. A history of North American birds. Land birds. *See also* BAIRD, S. F. and RIDGWAY, R.

1875. *See* BAIRD, S. F.

1875. Catalogue of the birds of New England. With brief notes indicating the manner and character of their presence; with a list of species included in previous catalogues believed to have been wrongly classed as birds of New England. *8vo. pp. 21.* *Boston.*

An annotated list of 336 species of New England birds, followed by a list of 29 species which the author has withdrawn. Reprint from the *Proceedings of the Boston Society of Natural History*, vol. XVII, March 3, 1875.

1884. The water birds of North America. *See also* BAIRD, S. F. and RIDGWAY, R.

BREWSTER, WILLIAM [1851–].

1879. Description of First Plumages of North American Birds. *8vo.* (Wanting.)

1886. The code of nomenclature and check-list of North American birds adopted by the American ornithologists' Union. . . *See* AMERICAN ORNITHOLOGISTS' UNION.

1886. Bird migration. *4to. pp. 22.*

Author's separate (Memoirs Nuttall Ornith. Club, No. 1); part I treating nocturnal bird-flights at a lighthouse in the Bay of Funday, and part II the general subject of bird migration.

1889. Descriptions of supposed new birds from western North America and Mexico. *8vo. pp. 85–98.* *[New York.]*

Author's reprint from the *Auk*, 1889. The ten supposed new birds here treated consist of five species and five subspecies.

1895. Second and revised Check-list of North American birds. *See* AM. ORNITH. UNION.

1895. The land-birds and game-birds of New England. *See* MINOT, HENRY DAVIS.

1902. Birds of the cape regions of Lower California. With one map. *8vo. pp. (2)+241+(1). map (fold.). bibliogr. index.* *Cambridge.*

The basis of this monograph consists of a collection of 'upwards of 4,400 birds' made for the author by Mr. M. Abbott Frazar in 1887.

1906. The Birds of the Cambridge Region of Massachusetts. Four plates and three maps. *8vo. pp. 426. front. (portr.). index.* *Cambridge, Mass.*

The best work on the birds of a given region, without details of description or synonymy, but with full notes on distribution, habits, seasonal occurrence, and much historical data. Mem. IV of the Nuttall Ornith. Club.

1910. Check-list of North American birds. Prepared by a committee of the American Ornithologists' Union. Third edition (revised). *See* AMERICAN ORNITHOLOGISTS' UNION.

1924. Birds of Lake Umbagog. *8vo.* *Cambridge.*

BREWSTER ORNITHOLOGICAL CLUB.

1899. Bulletin. No. 1. *pp. 3.* *Worcester, Mass.*

The Compiler has not seen this publication, which is listed in the Braislin sale catalogue, 1923.

BRIDGE, THOMAS WILLIAM [1848–1909].

1904. Fishes (exclusive of the systematic account of Teleostei). *London, New York.*

BRIGHTON. Dyke Road Museum.

1901. Catalogue of the cases of birds in the . . . Museum, &c. 3rd ed. *See* BOOTH, E. T.

1927. Catalogue of cases of birds. 5th ed. *See* BOOTH, E. T.

BRIGHTON AND HOVE NATURAL HISTORY AND PHILOSOPHICAL SOCIETY.

1855–*date.* Abstracts of Papers.

BRIGHTON NATURAL HISTORY AND PHILOSOPHICAL SOCIETY.
1886–*date*? Abstracts.

BRISTOL NATURALISTS' SOCIETY. *Bristol, Eng.*

1863–5. Series 1.

1866–72. Series 2.

1874–1903. Series 3.

1904–*date*. Series 4.

BRIGHTWEN, ELIZA (born ELDER), '*Mrs.* GEORGE BRIGHTWEN' [1830–1906].

1895. Inmates of my house and garden. . . . Illustrated by Theo. Carreras. *8vo. pp. (8)+9–277. front. 31 figs. T. of c.* *London.*

A collection of studies of natural history, a few of which had already appeared in *Nature Notes* and in the *Girls' Own Paper*. Four of these studies relate to the following birds: viz. Whitethroat, Brown Owl, Willow-Wrens, Tame Doves, and a fifth to feeding Wild Birds in Winter.

1897. More about wild nature. Illust. by the author. 3rd ed. *12mo. pp. xvi+261. front. (portr.). 20 pl. 3 figs. T. of c.* *London.*

Popular stories about wild animals. There is also a chapter on how to make books of feathers, and home museums, the book being intended principally for young people.

1897. Wild nature won by kindness. Illust. [5th ed.] *12mo. pp. (2)+230. 3 pl. 91 figs. T. of c.* *London.*

Little papers on natural history—including several on birds—written in a pleasing and popular style. The 1st edition appeared in 1890, the 2nd the same year, and the 3rd 1897 (and subsequent editions).

1909. Eliza Brightwen, the life and thoughts of a naturalist; ed. by W. H. Chesson, with introd. and epilogue by Edmund Gosse. *8vo. pp. xxxii+215. front. (portr.). 1 pl. (portr.). index.* *London.*

The autobiography, journal (1855–72), and thoughts (1892–5) of this talented naturalist. Many references to English birds occur throughout the volume.

BRIGHTWEN SERIES, THE.
1904. Bird life in wild Wales. *See* WALPOLE-BOND, J. A.

BRIMLEY, CLEMENT SAMUEL [1863–].
1919. Birds of North Carolina. *See* PEARSON, T. G. and BRIMLEY, H. H.

BRIMLEY, HERBERT HUTCHINSON [1861–].
1919. North Carolina geological and economic survey. Vol. IV. Birds of North Carolina. *See* PEARSON, T. G.

BRINK, CAREL FREDRIK.
1778. Nouvelle description du Cap de Bonne-Espérance avec un journal historique d'un voyage de terre fait par ordre du gouverneur Ryk Tulbagh dans l'intérieur de l'Afrique. *8vo. pl.* *Amsterdam.*

The plates that accompany this early volume are valuable as examples of the contemporary portraiture of some of the animals of the Cape of Good Hope, including the elephant, hippopotamus, giraffe, rhinoceros, wild boar, jerboa, and the Cape rodent mole—not the golden mole.

BRINKMANN, AUGUST [1878–].
1911. Bidrag til Kundskaben om Drøvtyggernes Hudkirtelorganer. *4to. pp. 229+3. illust.* Bibliography, pp. 210–15. *Kjøbenhavn.*

BRISSON, MATHURIN JACQUES [1723–1806].
1756. Regnum animale in classes IX distributum, etc. Le Règne animal divisé en IX classes, etc. *4to. pp. 6+382.* *Paris.*

A second and improved edition of this celebrated classic appeared in 1762, and is regarded as next in authority to the Linnaean productions. The author's methodical synopsis of the avian orders was published at Paris in 1760 and, like the present title, in parallel columns of Latin and French.

1760. Ornithologie, ou Méthode contenant la division des oiseaux en ordres, sections, genres, espèces & leurs variétés. A laquelle on a joint une description exacte de chaque espèce, avec les citations des auteurs qui en ont traité, les noms qu'ils leur ont donnés, ceux que leur ont donnés les différentes nations, & les noms vulgaires. Ouvrage enrichi de figures en taille-douce. *6 vols. 4to. pp. 253. pl. T. of c. index.* Added t.-p. in Latin. French and Latin in parallel columns. Supplément. *26 cm. 4to. pp. 146+xxii. 1 l. 6 fold. pl.* [With his Ornithologie. Paris, 1760, vol. 6.] Text in French and Latin. *Paris.*

Vol. I, *pp. xxiv+526+lxiii. pl. 37.* Vol. II, *pp. 516. pl. 46.* Vol. III, *pp. 734. pl. 37.* Vol. IV, *pp. 576. pl. 46.* Vol. V. *pp. 544. pl. 42.* Vol. VI, *pp. 543. pl. 37.* The plates are practically all folding.
This is one of the earliest of the Linnean period treatises, in which full descriptions are given of many genera and species of birds. It is a bilingual text-book, Latin predominating over French, of very great importance. J. A. Allen has published a review of Brisson's work. *Vide* his *Collation of Brisson's Genera*. The supplement, though separately paged and indexed, seems to form an integral part of the work. The present copy is a fine example from the Godman library.

1762. Regnum animale in classes IX distributum; sive, Synopsis methodica, sistens generalem animalium distributionem in classes IX. Editio altera auctior. Latin and French. *8vo. pp. 8+296.* *Lugduni Batavorum.*

An improved edition of the first printing.

1763. Ornithologia; sive Synopsis methodica sistens avium divisionem in ordines, sectiones, genera, species, ipsarumque varietates. *2 vols. 8vo. T. of c. Indexes.* Tomus I. *pp. 14+500.* Tomus II. *pp. 10+527.* *Lugduni Batavorum.*

This is a second edition of the earlier (1760) systematic treatise, giving in detail a generic and specific description of a large number of birds. The text and title are in Latin, lacking the French imprimatur of the early issue. The preface of the second volume has a bibliography and a list of works in the Publisher's library. The *supplementum ornithologiae* of the 1760 edition is lacking.

BRISTOL NATURALISTS' SOCIETY, ENGLAND.
1863–*date.* Proceedings.

BRITISH ANTARCTIC ('TERRA NOVA') EXPEDITION, 1910.
1914–23. Natural history reports, zoology. *See* BRITISH MUSEUM—NATURAL HISTORY.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.
1831–*date.* Reports. *London.*

1876. Notes on the fauna and flora of the west of Scotland. I. Mammalia, by E. R. Alston. II. Birds, by Robert Gray. III. Insects, by Peter Cameron. IV. Vascular flora, by James Ramsay. V. Cryptogamic flora, by James Stirton. *12mo. pp. xxxi+(1)+148.* *Glasgow.*

The first portion of this publication consists of 'Notes on the fauna and flora of the west of Scotland', pp. i–xxxi, the second 'A contribution towards a complete list of the fauna and flora of Clydesdale and the west of Scotland', compiled under the auspices

[**BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE** (*contd.*)]

of the Society of Field Naturalists, Glasgow, as a guide to the district, for the 1876 meeting of the British Association. The birds of Glasgow and its vicinity, by Robert Gray, will be found on pp. ix–xvi, and the list of birds which breed in the vicinity of Glasgow, by Henry C. Young, on pp. 7–10.

1908. Handbook to the city of Dublin and the surrounding District. *12mo. pp. viii+441. 37 pl. 55 figs. T. of c. index.* *Dublin.*

An excellent guide-book to the district. The annotated list of the birds is by Richard M. Barrington and occupies pp. 113–29 with two illustrations.

1911. British association, Portsmouth, 1911. Handbook and guide to Portsmouth. *16mo. pp. (8)+247. front. 6 maps (fold.). 59 figs. T. of c. index.* *Portsmouth.*

A small guide to the district, for the use of the members of the British Association. The portion dealing with the birds, by C. Foran, will be found on pp. 219–24, being a classified list under headings of some 225 species.

1912. British association, Dundee, 1912. Handbook and guide to Dundee and district. *8vo. pp. xiv+(2)+683. front. 31 pl. 6 maps (fold.) 3 col. in cover pocket. T. of c.* [*Dundee.*]

The birds of the estuary of the Tay is written by James B. Corr, assistant-curator of the Dundee Museum, and contains short notes on about 76 different species, pp. 618–25.

1913. A handbook for Birmingham and the neighbourhood. 83rd Annual meeting. *pp. (10)+637. front. 8 pl. 2 maps (col. fold. in pocket). 3 figs. (maps and plan). T. of c. index.* *Birmingham.*

Notes upon the ornithology of the district by Robert W. Chase are on pp. 490–501, with a short account of the status of each family to date.

1914. Handbook for New South Wales. *8vo. pp. 14+621. 26 pl. (2 col.). 3 maps.* *Sydney.*

In this excellent description of local Australian flora and fauna, Section II is devoted to Natural Science. The mammals and freshwater fauna are described by W. A. Haswell; birds by A. J. North; reptiles and amphibia by A. H. S. Lucas; fishes by A. R. McCulloch.

(THE) BRITISH AVIARY, AND BIRD KEEPER'S COMPANION. *See* ANONYMOUS.

(THE) BRITISH BIRD TOY AND PAINTING BOOK. *See* ANONYMOUS.

BRITISH BIRDS. **1840.** *See* ANONYMOUS.

BRITISH BIRDS. *London.*
1907–*date*. *See also* ZOOLOGIST (*London*).

BRITISH BIRDS; an illustrated magazine devoted chiefly to the birds on the British list.
1907–*date*.
Vols. 1–2 (1907–9), edited by H. F. Witherby, assisted by W. P. Pycraft.
Vols. 3–11, no. 8 (1909–18), edited by H. F. Witherby, assisted by F. C. R. Jourdain and N. F. Ticehurst.
Vols. 11 (no. 8)–12 (1918–19), edited by F. C. R. Jourdain, assisted by N. F. Ticehurst.
Vols. 13+ (1919+), edited by H. F. Witherby, assisted by F. C. R. Jourdain and N. F. Ticehurst.
Vols. 1–9 (1907–16), title reads: British birds; an illustrated magazine devoted to the birds on the British list.
Each number has a table of contents.
In January 1917 incorporated: The Zoologist.

This is the most important of the periodicals devoted to the study of British birds, eggs, and nests. Numerous observations of rare species and in particular the habits and behaviour of avian life in the United Kingdom are faithfully portrayed and illustrated. Hundreds of photographs of birds in their native habitat are given, and the migrations and 'ringing' and subsequent capture of individuals are fully recorded. A feature of this journal is the biography of British ornithologists by W. H. Mullens that runs through it. In addition to a large number of papers and notes by the editors, the names of many distinguished British writers appear on its pages.

BRITISH COLUMBIA, PROVINCIAL MUSEUM, VICTORIA.
1904. Catalogue of British Columbia birds. *See* KERMODE, FRANCIS.

1909. Provincial museum of natural history and ethnology. Victoria, British Columbia. *8vo. pp. 92. front. 39 pl. 14 figs.* *Victoria.*

Visitors' guide to the natural history and ethnological collections in the Provincial Museum. Birds are described on pp. 21–74, with six illustrations.

1912–*date*. Report.

(THE) BRITISH GUIANA HANDBOOK.
1922. *See* FRANCIS, WILLIAM.

BRITISH JOURNAL OF EXPERIMENTAL BIOLOGY. **1923**–*date*. *Edinburgh.*

BRITISH MUSEUM—Natural History.
1844-48. List of the specimens of birds in the collection of the British Museum. *See* GRAY, G. R.

1850–2. Catalogue of the specimens of mammalia in the collection of the British Museum; [by J. E. Gray]. *3 pts. in 2 vols. pl.* *London.*

1852. List of the specimens of British animals in the collection of the British Museum. Part ix. Eggs of British birds, &c. *See* GRAY, G. R.

1854. Catalogue of fish collected and described by Laurence Theodor Gronow, now in the British museum. *18½ cm. pp. 7+196.* Text in Latin, evidently written by L. T. Gronovius, printed from the MS. in the British Museum. Preface signed: John Edward Gray. *London.*

1855. Catalogue of the genera and subgenera of birds contained in the British Museum, by G. R. Gray. *12mo. pp. (4)+192. append. index.* *London.*

A complete List of the Genera and Subgenera of Birds with their chief Synonyma and Types. It commences with the *Systema Naturæ*, published by Linnaeus in 1735, the genera which are not present in the British Museum Collection being marked with a dagger to indicate desiderata.

1856. Catalogue of apodal fish, in the collection of the British museum. By Kaup. *23 cm. pp. viii +163. illust. 19 pl.* 'The German MS. of Dr. Kaup has been translated . . . by Sir John Richardson.'—Pref. *London.*

1856. Catalogue of lophobranchiate fish in the collection of the British museum. By J. J. Kaup. *18½ cm. pp. 4+80. 4 pl.* *London.*

1859. Catalogue of the birds of the tropical islands of the Pacific Ocean in the collection of the British Museum, by G. R. Gray. *8vo. pp. (4)+72. addend. index.* *London.*

A complete Catalogue of the species of Birds (with their specific names and synonyms) as found on the numerous islands of the Pacific Ocean, which are situated within the tropics between the longitudes of 134° E., and 130° W.

1859. Catalogue of the *Mammalia* and birds of New Guinea, in the collection of the British museum. By John Edward Gray . . . and George Robert Gray. *8vo. pp. (4)+63+(1)+8. 9 figs.* *London.*

The portions relating to the birds will be found on pp. 16–53, giving the scientific names with habitat, and in some cases short descriptive notes, whilst on pp. 54–63 will be found a list of the Species of New Guinea Birds and those of the neighbouring localities.

1859–70. Catalogue of the fishes in the British museum, by Albert Günther. *8 vols. 8vo. London.*

A famous treatise, fundamental for a study of the subject.

1862. Catalogue of the bones of *Mammalia* in the collection of the British museum. *23 cm. pp. 4+296.* Compiled by Edward Gerrard. *London.*

1863. Catalogue of British birds in the collection of the British Museum; by G. R. Gray. *8vo. pp. 13+247. append.* *London.*

1866. Catalogue of seals and whales in the British museum. By John Edward Gray. 2nd ed. *23 cm. pp. 8+402. illust.* First edition was published as parts 1 and 2 of Catalogue of the specimens of *Mammalia* in the collection of the British museum, in 3 parts, 1850–2: pt. I, *Cetacea*; pt. II, Seals; pt. III, *Ungulata furcipeda.* *London.*

1868. Synopsis of the species of whales and dolphins in the collection of the British museum. (Illustrated with 37 plates, by the late William Wing.) By John Edward Gray. *31 cm. pp. 1+10. 37* (i.e. *38*) *pl.* *London.*

1869. Catalogue of carnivorous, pachydermatous, and edentate Mammalia in the British Museum; by J. E. Gray. *8vo. pp. 8+398. illust.* *London.*

1869–71. Hand-list of genera and species of birds, distinguishing those contained in the British Museum, by G. R. Gray. *3 vols. 8vo.* *See also* GRAY, G. R. *London.*

1870. Catalogue of monkeys, lemurs, and fruit-eating bats in the collection of the British museum. By Dr. J. E. Gray. *23 cm. pp. 8+137. illust.* *London.*

1871. Supplement to the Catalogue of seals and whales in the British museum. By John Edward Gray. *21½ cm. pp. 6+103. illust.* 1. Seals (Animals). 2. Whales. *London.*

1872. Catalogue of ruminant *Mammalia* (*Pecora*, Linnæus) in the British museum. By John Edward Gray. *21 cm. pp. 8+102.* *London.*

1873. Hand-list of the edentate, thick-skinned and ruminant mammals in the British museum. By Dr. J. E. Gray. Forty-two plates of skulls. *22½ cm. pp. 7+176. 42 pl.* *London.*

1874. Hand-list of seals, morses, sea-lions, and sea-bears in the British museum. By Dr. J. E. Gray. Thirty plates of skulls. *22½ cm. pp. 2+43.* *London.*

1874–98. Catalogue of the birds in the British Museum. *See* SHARPE, R. B.

1874. A guide to the exhibition rooms of the departments of natural history and antiquities. *8vo. pp. viii+153. 2 pl.* (*plans fold.*). *T. of c.* [*London.*]

The collection of animals is contained in three galleries, the birds being exhibited in wall-cases, and the eggs in the table-cases of the several rooms, as shown in the two folding plans of the building. A list of the natural history publications of the British Museum is given on pp. 143–4.

1876. Descriptive and illustrated catalogue of the fossil *Reptilia* of South Africa in the collection of the British museum. By Richard Owen. *33½×26½ cm. pp. 12+88. illust. 70 pl.* (*partly fold.*). *London.*

1877. Gigantic land-tortoises (living and extinct) in the collection of the British Museum, by A. C. L. G. Günther. *folio. pp. 4+96. pl. London.*

1878. A guide to the exhibition rooms of the departments of natural history and antiquities. *8vo. pp. 12+155.* *London.*

1884. Report on the zoological collections made in the Indo-Pacific ocean during the voyage of H.M.S. 'Alert' 1881–2. *8vo. pp. xxv+684. 54 pl.* (*8 fold., 2 col.*). *T. of c. 2 indexes.* *London.*

The report on the birds—which were obtained in the islands of Torres Straits, Queensland, and in North-western Australia—will be found on pp. 11–28, Mr. R. Bowdler Sharpe being responsible for this part of the work.

1885. Guide to the galleries of *Mammalia* (mammalian, osteological, cetacean). 57 woodcuts and 2 plans. *21½ cm. pp. 3+125. fold. plan.* Edited by A. Günther. *London.*

1885–7. Catalogue of the fossil *Mammalia*, by Richard Lydekker. *5 vols. 23 cm. illust. London.*

1885. Guide to the collection of fossil fishes in the Department of geology and palæontology. *21½ cm. pp. 47. illust.* *London.*

1886. Catalogue of the Blastoidea in the Geological dept. By Robert Etheridge and P. H. Carpenter. *4to. pp. 16+322. 20 pl.* *London.*

1887. Guide to the galleries of reptiles and fishes. *8vo. pp. 4+119. illust. diag.* *London.*

1888. Catalogue of the *Marsupialia* and *Monotremata*. By Oldfield Thomas. *23 cm. pp. xiii+401. 28 pl.* (*4 col.*). *London.*

1888–90. Catalogue of the fossil reptilia and amphibia in the British museum (Natural history) pt. I– . By Richard Lydekker. *8vo. illust.* *London.*

1889–1901. Catalogue of the fossil fishes. By Arthur Smith Woodward. *23 cm. illust. 4 vols. pl.* *London.*

1891. Catalogue of the fossil birds in the British Museum. *See* LYDEKKER, RICHARD.

1893. Guide to the galleries of reptiles and fishes. 101 woodcuts and 1 plan. 3rd ed. *21½ cm. pp. 4+119. fold. plan.* Prepared by Albert Günther. *London.*

1894. Guide to the galleries of mammalia (mammalian, osteological, cetacean). 57 woodcuts and 2 plans. 5th ed. *pp. 8+126.* Ed. by A. Guenther.

[**BRITISH MUSEUM — Natural History** (*contd.*)]

1895. Catalogue of the fishes in the British museum. G. A. Boulenger. 2nd ed. *8vo. pl.* *London.*

1895. A General guide to the British Museum (natural history), with plans and views of the building. *8vo. pp. (6)+7–80. front. 1 pl. 2 plans (fold.).* [*London.*]

1896. A guide to the fossil reptiles and fishes in the Department of geology and palæontology. 7th ed. *22 cm. pp. 14+129. front. illust. tab.* *London.*

1899–1909. A hand-list of the genera & species of birds [Nomenclator avium tum fossilium tum viventium]. By R. Bowdler Sharpe. *5 vols.* *London.*

1899–1909. General index of the birds. Ed. by W. R. Ogilvie-Grant. *23 cm. pp. 4+199. London.*

1900. A monograph of Christmas Island, physical features and geology, mammalia, land crustacea, &c. *See* ANDREWS, C. W.

1901–12. Catalogue of the collection of birds' eggs in the British museum (Natural history). *5 vols. 8vo.* Vols. I–II compiled by E. W. Oates; III–IV, by E. W. Oates, assisted by S. G. Reid; V, by W. R. Ogilvie-Grant. Vol. I, *pp. xxiii+252+23 (advt.). 18 pl. (col.). index.* Vol. II, *pp. xx+400+24 (advt.). 15 pl. (col.). index.* Vol. III, *pp. xxiii+349+(3)+24 (advt.). 10 pl. (col.). index.* Vol. IV, *pp. xviii+352+25 (advt.). 14 pl. (col.). index.* Vol. V, *pp. xxiii+547+(1)+30 (advt.). 22 pl. (col.). index.* *London.*

Prepared somewhat after the plan of the British Museum's *Catalogue of the Birds*, 1874–98 (q.v.), but following, with slight variations, the nomenclature of Sharpe's *Hand-list of the Genera and Species of Birds*, 1899–1909. Under each species are given a list of bibliographic references, a description of the eggs, and a list of the specimens.

1902. Guide to the galleries of mammalia in the department of zoology. 7th ed. *8vo. pp. [4]+126. illust. plan.* [*London.*]

1902. Handbook of instructions for collectors. *pp. 137. illust.* *London.*

1902. Report on the collections of natural history made in the Antarctic regions during the voyage of the 'Southern Cross'. *8vo. pp. ix+344. 53 pl. (9 col.). 31 figs. T. of c. index.* *London.*

This expedition was fitted out by Sir George Newnes in 1898, Mr. Nicolai Hanson being the Zoologist. Unfortunately he died in October 1899 and only the natural history notes from his private diary are published in the present volume. Those relating to the birds together with the specimens obtained were handed over to Mr. Bowdler Sharpe who undertook the preparation of the account of the Aves. This appears on pp. 106–73 with 20 illustrations, the extracts from the private diary of the late Nicolai Hanson just preceding it, pp. 79–105, with four illustrations, being translated from the Norwegian by his father Mr. Anton Hanson. A systematic account of the collected vertebrates is given in this admirable report. G. E. H. Barrett-Hamilton described the mammals (E. A. Wilson the seals); G. A. Boulenger the fishes.

1903–22. Catalogue of the books, manuscripts, maps and drawings. Vols. 1–6. Supplement (vol. VI) A–I. *4to.* Vol. I, A–D. *pp. viii+500.* Vol. II, E–K. *pp. (6)+501–1038.* Vol. III, L–O. *pp. (6)+1039–1494.* Vol. IV, P–SN. *pp. (6)+1495–1956.* Vol. V, SO–Z. *pp. (6)+1957–2403.* Vol. VI, Supplement A–I. *pp. (6)+511+(1). Addenda and corrigenda* Vols. I and II, A–Hooker. *pp. (2)+48.* *London.*

One of the finest and most valuable collections of Works on Natural History, the complete catalogue containing probably some sixty thousand or more entries ranged under the names of the authors of the various works. Societies and Corporate Bodies are considered to be authors of their publications, and four subject-headings for Atlases, Dictionaries, Encyclopaedias, and Gazetteers have been included, as well as official accounts of Surveys and Explorations undertaken by any Government. Magazines and Journals of a similar character are also included. Vol. I appeared on June 27, 1903; vol. II, on April 23, 1904; vol. III, on June 25, 1910; vol. IV, on May 31, 1913; vol. V, on June 26, 1915; and the Supplement, vol. VI, on March 15, 1922. The Compiler of the present Introduction and Catalogue has found these admirable volumes of the greatest value to him.

1904. Handbook of instructions for collectors. 2nd ed. *17½ cm. pp. 4+138. illust.*

'The various chapters have been written by different members of the staff of the Natural history museum'.—Pref.

1904–6. History of the collections. *2 vols. 8vo.* Appendix by Albert Günther. 1912. *pp. 10+109.* *London.*

1905. Guide to the gallery of birds in the department of zoology. *pp. iv+228. 24 pl. 7 figs. T. of c. append. index.* *London.*

By W. R. Ogilvie Grant. The plates are from photographs of actual specimens in the gallery—an extremely useful book for the student.

1905. A guide to the fossil reptiles, amphibians, and fishes in the department of geology and palaeontology. 8th ed. *8vo. pp. 18+110. illust. pl. diag.* *London.*

1905–16. Special guides, nos. 1–7. *7 vols. in 1. 4to.* *London.*

No. 1. Guide to an exhibition of old natural history books. 2. Books and portraits illustrating the history of plant classification exhibited in the department of botany. 3. Memorials of Linnaeus. 4. Memorials of Charles Darwin. 5. Guide to the exhibition of animals, plants, and minerals mentioned in the Bible. 6. Guide to the exhibition of specimens illustrating the modification of the structure of animals in relation to flight. 7. Guide to the specimens and enlarged models of insects and ticks exhibited in the Central Hall, illustrating their importance in the spread of disease.

1906. Guide to the gallery of reptilia and amphibia in the department of zoology. *8vo. pp. 4+75. illust. pl.* *London.*

1907. Guide to the great game animals (*Ungulata*) in the Department of zoology. 53 text and other figures. *21½ cm. pp. 8+93. front. illust. pl.* *London.*

Compiled by R. Lydekker.

1907. Guide to the specimens of the horse family (*Equidæ*). *21½ cm. pp. 42. pl.* *London.*

Compiled by R. Lydekker.

1907–*date*. [Report of the 'Discovery'. Voyage, 1901–4, under Capt. R. F. Scott.] *6 vols. 4to. illust.* *London.*

This memorable voyage was undertaken under the auspices of the National Antarctic Expedition, and a very complete account of South Polar fauna is given in the voluminous Report. A few of the collected specimens were obtained from the relief ship 'Morning'. In vol. II the mammals (whales and seals) are described by E. A. Wilson (1907) and (seal-embryos, vol. V) H. W. M. Tims (1910). The former article has pp. 69 and 23 pl. (2 col.), the latter pp. 21, 2 pl., and text-figs. The aves are described by E. A. Wilson, pp. 121, 36 col. pl., and W. P. Pycraft (penguins, pp. 28, 1 pl., text-figs.); fishes by G. A. Boulenger, pp. 5, 2 pl.

1908. A guide to the domesticated animals (other than horses) exhibited in the central and north halls of the British Museum. *8vo. pp. 8+54. illust. pl.* *London.*

1908. A guide to the elephants (recent and fossil) in the department of geology and palaeontology. *8vo. pp. 4+46. illust.* *London.*

1908. Guide to the gallery of fishes. *8vo. pp. 6+209. illust.* *London.*

1908. Guide to the specimens illustrating the races of mankind (anthropology). By R. Lydekker. *8vo. pp. 31. illust.* *London.*

1908. A guide to the domesticated animals (other than horses). *8vo. pp. (8)+54. 24 figs. T. of c. index.* *London.*

In this guide-book, by R. Lydekker, birds are treated on pp. 48–51, without illustrations. A second edition was published in 1912. The present copy is a presentation from the Trustees of the British Museum.

1909. A guide to the fossil mammals and birds in the dept. of geology and palaeontology. *See* WOODWARD, ARTHUR SMITH, 1909 and 1923.

1909. Catalogue of the fresh-water fishes of Africa, by George Albert Boulenger. *28½ cm. illust.* *London.*

1909. Guide to the whales, porpoises, and dolphins (order *Cetacea*). *21½ cm. pp. 47. illust. pl.* *London.*

Compiled by R. Lydekker.

1910. Monograph of the okapi, by Sir E. Ray Lankester . . . Atlas (of 48 plates) comp. with the assistance of W. G. Ridewood. *31½ cm. pp. xxii. 48 pl. (2 col.).* *London.*

'It is doubtful whether the atlas will be followed by a volume of text.'

1910–13. A descriptive catalogue of the marine reptiles of the Oxford clay. Based on the Leeds collection. Pts. 1–2. *2 vols. 33 cm. front. illust. pl.* *London.*

Each plate preceded by leaf with descriptive letterpress, by C. W. Andrews.

1910. Guide to the British vertebrates. *8vo. pp. iv+122. 27 figs. (1 plan). T. of c. append. index.* *London.*

The portion devoted to birds is on pp. 32–52, and 83–113 in the Appendix, which latter consists of a list of 442 species and subspecies of British birds, with notes in the case of the rarer species as to occurrence and where recorded.

1912. Catalogue of the *Chiroptera*. 2nd ed. by Knud Andersen. *23 cm. illust.* *London.*

1912. Catalogue of the Mammals of western Europe (exclusive of Russia), by G. S. Miller. *8vo. pp. 15+1019. text-figs.* *London.*

An extremely valuable systematic treatise.

1912. A guide to the domesticated animals other han horses. By R. Lydekker. *8vo. pp. vi+56. 25 figs. T. of c. index.* *London.*

The present edition differs from that of the first, 1908, in having one extra figure, as well as the text revised and brought up to date. The present copy is a presentation from the Trustees of the British Museum.

1912. The history of the collections. Vol. II. Appendix. General history of the department of zoology from 1856–1895 by Albert Günther. *8vo. pp. ix+109. T. of c. index.* *London.*

A valuable record of the development of the Zoological section of the British Museum from the year 1856 to the year 1895, when Dr. Günther retired from the service of the Trustees. The two volumes of which this forms an appendix were issued in 1904–6 (q.v.).

1913. Catalogue of the heads and horns of Indian big game bequeathed by A. O. Hume. By R. Lydekker. *23 cm. pp. xvi+45. illust.* *London.*

1913–16. Catalogue of the ungulate mammals, by R. Lydekker. *5 vols. 8vo. illust. portr.* *London.*

1913–*date*. Publications. Economic series. Nos. 1– .

1914. Guide to the galleries of mammals. 9th ed. *8vo. pp. 4+123. illust. pl.* *London.*

1914–22. Voyage of the 'Terra Nova', 1910. Natural History Report. *3 vols. 4to.* *London.*

Vol. I contains the zoology (so far published) of this important scientific expedition and it treats only of a few vertebrates. Fishes are described by C. T. Regan (1914); the Adélie Penguin by G. M. Levick (1915), and cetacea by D. G. Lillie (1915).

1915–26. Instructions for collectors. *8vo. pp. 222. 49 figs.* *London.*

A valuable series of 13 pamphlets with illustrations.

1917. Guide to the British fresh-water fishes. *8vo. pp. 39. illust.* *London.*

1920. Summary guide to the exhibition galleries. *pp. 16. 4 figs. (3 plans).* *London.*

1921. Instructions for collectors: No. 2.—Birds and their eggs. 7th ed. *8vo. pp. 14. 6 figs.* *London.*

Divided into three parts: I. Instructions for the preservation of the skins of birds, with three illustrations; II. How to determine the sex of a bird, with two illustrations; III. Directions for collecting eggs, with one illustration. A most valuable and practical field manual.

1922. Summary guide to the exhibition galleries. 2nd ed. *8vo. pp. 16. 4 figs. (3 plans).* *London.*

1924. Eggs of British birds; cards in colour. Series 1–4. *24mo. pp. 24. 20 pl. (col.).* *London.*

A series of drawings by H. Grönvold comprising colored figures of the eggs of 121 species of British birds, each series accompanied by a leaflet giving a short description of the nest, the number of eggs laid, and when and where they may be found.

1926. Summary guide to the exhibition galleries. 3rd ed. *8vo. pp. 16.* *London.*

BRITISH NATURALIST. *London.*
1891–3.

1894. New series.

BRITISH NORTH AMERICAN BOUNDARY COMMISSION.

1875. Report on the geology and resources of the region in the vicinity of the forty-ninth parallel, from the Lake of the Woods to the Rocky Mountains, with lists of plants and animals collected, and notes on the fossils. *See* DAWSON, G. M.

BRITISH OOLOGICAL ASSOCIATION.

1923–*date*. Bulletin, nos. 1– . *2 vols. 8vo.* Vol. I, *pp. xi+(1)+140. 1 fig. (chart). T. of c.* Vol. II, *pp. 78* (in progress). *London.*

An Association formed (1922) for the discussion of oology, exhibiting rare eggs, and generally stimulating investigation in this branch of science. Vol. I contains the reports of the first 12 meetings. Prior to this 15 meetings were held under the auspices of the British Ornithologists' Union, and the proceedings of these meetings will be found either in *The Ibis* or in the *Bulletin of the British Ornithologists' Club.*

BRITISH ORNITHOLOGISTS' CLUB.

London.

1892–*date*. Bulletin. *See* BULLETIN BR. ORNITH. CLUB.

BRITISH ORNITHOLOGISTS' CLUB MIGRATION REPORTS. 1905–22. *See* BULLETIN OF THE BRITISH ORNITHOLOGISTS' CLUB.

BRITISH ORNITHOLOGISTS' UNION.

1883. A list of British birds compiled by a Committee of the British Ornithologists' Union. *8vo. pp. xxxi+229. T. of c. index.* *London.*

An annotated list of all the birds 'of which even a single specimen has been obtained in an undoubtedly wild state within the confines of the British Islands'. The official list of the British Ornithologists' Union, now superseded by the second edition, 1915. The present copy is interleaved with MS. notes.

1905. A list of British Birds, compiled by a committee.

1915. A list of British birds, comp. by a committee. 2nd and rev. ed. *8vo. pp. xxii+430. T. of c. append. index.* *London.*

A revised, fully annotated list. Appendix I contains a list of species which have been recorded as having been found in the British Islands, but (on evidence) which the Committee do not regard as entirely satisfactory. Appendix II contains a list of 'Nomina Conservanda'. Appendix III is devoted to nomenclatorial problems and changes. Bound in with the present copy is 'Some additions and Corrections to the B.O.U. List of British Birds'. [From *The Ibis* for April 1918, pp. 234–43.]

1916. Reports on the collections made by the British ornithologists' union expedition and the Wollaston expedition in Dutch New Guinea, 1910–13. *2 vols. 4to.* Vol. I, *pp. (4)+v+(1)+22+(2)+50+10+240+235. 20 pl. (9 col., 8 of birds). 40 figs. (3 of birds). T. of c. index.* *London.*

This work consists, mostly, of articles previously published elsewhere, but here assembled and reprinted with both original and new pagination. Vol. I contains articles I–X; vol. II, articles XI–XX. The ornithological matter is contained in the preface, pp. i–v, by Ogilvie-Grant, in the introduction, pp. 1–22, by A. F. R. Wollaston, and in part III, pp. 1–240, by Ogilvie-Grant, the eight colored plates of the birds being by H. Grönvold. 150 copies of this work were printed, of which the present one is No. 25.

BRITISH SOCIETY OF AVICULTURE.

1918–?30. Journal. *See* JOURNAL OF THE BRITISH SOCIETY OF AVICULTURE.

BROCCHI, P. *See* MISSION SCIENTIFIQUE AU MEXIQUE, 1868–1909.

BROCKLESBY, RICHARD [1722–97].

1746. An essay . . . Mortality . . . among horned Cattle, etc. *8vo.* *London.*

BROCKMAN, RALPH EVELYN DRAKE- [1875–].

1910. The mammals of Somaliland. *8vo. pp. 18+201. pl.* *London.*

BRODERIP, WILLIAM JOHN [1789–1859].

1847. Zoological Recreations. *8vo. pp. 12+380.* *London.*

A voluminous, semi-popular writer who has several editions of his books to his credit.

1849. Zoological recreations. New ed., with additions. *8vo. pp. viii+(4)+384. T. of c.* *London.*

A series of papers which originally appeared in the *New Monthly Magazine* and are here brought together in book form. The work is divided into two parts, the first containing the matter relating to birds, pp. 1–172, whilst the latter deals with quadrupeds, etc. A fourth edition, revised and enlarged, appeared in 1860.

1852. Leaves from the Note Book of a Naturalist. *8vo.* *London.*

1858. Zoological Recreations. 3rd ed. *8vo.*

1860. Zoological recreations. 4th ed., rev. and enl. *8vo. pp. viii+(4)+382. engraved t.-p. T. of c.* *London.*

This edition differs from that of 1849 in having not only an engraved title-page but an extra one also. In other respects, the text is the same as before, except that there is no indication that the book is divided into two parts.

1865. Falconer's favourites. Contains life-sized coloured lithographs of 'all the British species of falcons at present used in falconry' with descriptive letterpress. *roy. folio. pp. 1+6 of explan. text. 6 large col. pl.* *London.*

This magnificent atlas of privately-owned falcons is intended as 'a sequel to the 1855 ed. of *Falconry in the British Isles* [q.v.], issued by F. H. Salvin and the writer, and comprises all the British species at present used in Falconry'.

1866. Memoir on the dodo. *See* OWEN, RICHARD.

1873. *See* SALVIN, FRANCIS HENRY.

BROHMER, P. and **others.**

1928–*date*. Die Tierwelt Europas. *8vo.* *Leipzig.*

This elaborate treatise, to be published in seven volumes of about 300 pages each with numerous plates and text-figures, has so far concerned itself with invertebrate zoology. A general introduction has been issued by Prof. Brohmer with a notice that the final volume (VII) will deal with Pisces, by P. Schiemenz; Amphibia by F. Werner; Reptilia by F. Werner; Aves by C. Zimmer, B. Rensch, and B. Dürigen; Mammalia by the chief editor.

BROINOWSKI, GRACIUS J.

1887–91. The birds of Australia, comprising 300 illustrations, with a descriptive account of the life and characteristic habits of over 700 species. *6 vols. in 3. folio.* Vol. I. [1887.] 1890. *58 l. 52 col. pl.* Vol. II. [1887.] *n.d. 74 l. 58 col. pl.* Vol. III. [1890.] *n.d. 63 l. 47 col. pl.* Vol. IV. 1890. *57 l. 48 col. pl.* Vol. V. 1891. *66 l. 50 col. pl.* Vol. VI. 1891. *50 l.+xxx+1. index and errata.* *Melbourne.*

This comprehensive history of Australian birds is written in semi-popular style and illustrated by chromolithographs by the author. The actual date of publication of the first volume is in doubt.

1888. The pigeons of Australia. *folio. 14 l. 11 pl. (col.).* [*Melbourne.*]

The above copy forms a small (but separately printed) portion of vol. III of the author's *The Birds of Australia*, 6 vols. In that copy no date is given for vol. III, but in the present portion it is clearly stated as 1888 on the title-page. The coloring of the plates in both copies is identical, as is also the text and the numbering of the plates 1–11. The volume forms a companion to *The Cockatoos and Nestors of Australia and New Zealand*, 1888.

1888. The cockatoos and nestors of Australia and New Zealand. *folio. 15 l. 13 pl. (col.).* [*Melbourne.*]

The above forms a small but separately printed portion of vol. III of the author's *The Birds of Australia*. The coloring of the plates in both copies is identical, as is also the text and the numbering of the plates 12–24 in Arabic, as noted in the *Ayer Catalogue* by Zimmer, who gives the date of vol. III as 1887. A good deal of confusion seems to exist as to the exact date of this volume and that of vol. I, the former apparently ante-dating the latter.

BROMME, TRAUGOTT [1802–66].

1867. Atlas till Djurrikets natural-historia för skolan och hemmet. Andra upplagan. *4to. pp. 2+30. 621 figs. 33 col. pl.* *Stockholm.*

BRONN, HEINRICH GEORG [1800–62].

1841–3. Handbuch einer Geschichte der Natur. *3 vols. 8vo.* (Bischoff, G. W. and others, Naturgeschichte d. drei Reiche.) *Stuttgart.*

On pp. 696–700 (vol. 3) there is a list of those birds to which he assigns a geological age from their footprints. In subsequent pages there are brief discussions of the relationships of birds, particularly the question of the place of the ostrich-like birds (p. 847). The traces left by birds as guano and footprints are discussed more fully in vol. 2, pp. 445–53.

1858. Untersuchungen über die Entwickelungs-Gesetze der organischen Welt während der Bildungs-Zeit unserer Erd-Oberfläche; eine von der Französischen Akademie im Jahre 1857 gekrönte Preisschrift mit ihrer Erlaubniss Deutsch hrsg. *8vo. pp. 10–502. illust. tab.* *Stuttgart.*

1859–97. Die Klassen und Ordnungen des Thier-Reichs, etc. Bde 5. *Illust.*
Leipzig and Heidelberg.

This monumental treatise, continued after the death of the original author and editor, was written in collaboration with some half-dozen other scientists who treated systematically most branches of zoological science. Of vertebrate animals A. A. W. Hubrecht (and M. Sagemehl) wrote the chapters on Pisces (1876); C. K. Hoffmann treated Amphibia, pp. 726, 52 pl. (1873–8), and Reptilia, pp. 2,089, 170 pl., 3 vols. (1879–90); Hans Gadow and E. Selenka described the Aves, pp. 1,008, 59 pl., 2 vols. (1869–91); while C. G. Giebel and W. Leche began the Mammalia in 1874. This remarkable encyclopedia is still unfinished, but the parts already complete form a valuable work of reference in the study of general zoology.

BROOK, ARTHUR.
1920. The buzzard at home. *8vo. pp. 15. 12 pl.* ('British birds' photographic series.) *London.*

[**1924**]. Secrets of bird life, &c. *See* GILBERT, H. A.

BROOKLYN INSTITUTE OF ARTS AND SCIENCES.
1908–*date.* Bulletin.

1904. Museum Memoirs of Natural Science.

1901–*date.* Science Bulletin.

1914–*date.* Brooklyn Museum Quarterly.

BROOKS, ALLAN [1869–].
1909. *See* DAWSON, W. L. and BOWLES, J. H. The birds of Washington; . . . Illustrated by . . . 40 drawings in the text and a series of full-page colour plates by A. Brooks.

******** and **SWARTH,** HARRY S.

1925. Cooper Ornithological Club. Pacific Coast Avifauna no. 17. A distributional list of the birds of British Columbia. . . . Contribution No. 423 from the Museum of Vertebrate Zoology of the University of California. *4to. pp. 158. front. (col.). 27 maps (1 col. fold.). 11 figs. T. of c. bibliogr. index.* *Berkeley, Calif.*

The territory covered by this list includes the whole of the province of British Columbia with the exception of the extreme north-eastern corner, that portion lying east of the Rocky Mountain divide. The list includes 409 species and subspecies exclusive of introduced species. Following the scientific and vernacular name of each species, is a list of synonyms and status of the bird, with distributional maps. A bibliography is added at the end of the volume.

1927–30. Audubon Bird Cards. *See* HADLEY, ALDEN H. NATIONAL ASSOCIATION OF AUDUBON SOCIETIES.

BROOKS, CHARLES [1795–1872].
1847. Elementary course of natural history, being an introduction to zoology intended for the college and the parlor. Elements of ornithology. *8vo. pp. 324. figs. in text. T. of c. index.* *Boston.*

BROOKS, HENRY. (MANN, R. J., *ed.*)
1876. Natal; a history and description of the colony: including its natural features, productions, industrial condition and prospects. *8vo. pp. viii+336. front. (col.). 15 pl. (5 col., 2 maps, 1 fold.). T. of c.* *London.*

This work has eight chapters, number four containing an account of the wild animal life in which birds are included (pp. 106–65).

BROOKS, JENNIE [1853–].
[**1922**]. Quests of a bird lover. *8vo. pp. 184. front. T. of c.* *Boston.*

A series of popular sketches, several of which had appeared in Lippincott's *Magazine.*

BROOKS, W. E.
1872. Notes on the ornithology of Cashmir—The swans of India—The imperial eagles. *8vo. pp. 20.*

A discussion on the status of the swans and eagles of India, and the description of a new sylvia (author's excerpt from the *Journ. As. Soc. Beng.*, 1872).

BROOKS, WILLIAM KEITH [1848–98].
1883. The Law of Heredity. *8vo.* [O.] *Baltimore.*

BROOKSBANK, FRANK HENRY.
1925. Egyptian birds, with a chapter on migration. *8vo. pp. vii+120. 27 figs. illust.* *London.*

A popular account of the commoner Egyptian birds, with a chapter on migration.

BROOKSHAW, GEORGE.
1817. Six birds, accurately drawn and coloured after nature, with full instructions for the young artist; intended as a companion to the treatise on flower painting. *folio. 6 plain and 6 col. pl. n.p.* *London.*

Sample drawings for embryo artists. They are lithographed in the usual fashion and the same plate (on opposite pages) colored as patterns for the pupil. Not listed in the *Br. Mus. Cat. (Nat. Hist.).*

BROOKVILLE SOCIETY OF NATURAL HISTORY. *Richmond, Ind.*
1885–8. Bulletin. (Merged into Indiana Academy of Science.)

BROOM, R. *See* NATAL, 1901–7.
1905. *See* FLINT, W.

BROTÉRIA. (Revista des Sciencias Naturaes.) *Lisbon.*
1902–6. Continued in series.

1907–*date.* Série Zoológica.

BROUSSONET, PIERRE MARIE AUGUSTE [1761–1807].
[**1782**]. Ichthyologia sistens Piscium descriptiones et icones. *4to. pp. 8+34. 11 pl.* *London.*

One of the early illustrated treatises on general ichthyology but not of much importance.

BROWN, A. M. **1867.** *See* AMERICAN NATURALIST.

BROWN, CHARLES BARRINGTON.
1876. Canoe and camp life in British Guiana. Illust. Map. *8vo. pp. x+400. front. (col.). 9 pl. (col.). 1 map (fold.). T. of c.* *London.*

An interesting account of the author's explorations in British Guiana during the years 1868–72. References to some of the more uncommon birds met with occur in almost all of the 15 chapters.

BROWN, HENRY HILTON.
n.d. By meadow, grove and stream; an introduction to nature study. *pp. 196. pl.* *London.*

BROWN, JOHN ALEXANDER HARVIE- [1844–1916].
See also HARVIE-BROWN, JOHN ALEXANDER.

1879. The capercaillie in Scotland, Edinburgh.
See also HARVIE-BROWN, J. A.

1880–9. Reports on the migration of birds; in the autumn of 1879 and the spring of 1880 to 1887, being Reports I to IX. By J. A. Harvie-Brown, J. Cordeaux, R. M. Barrington, A. G. More, and W. Eagle Clarke. *2 vols. 8vo. 4 maps (fold.).* Vol. I, Reports I–V. Vol. II, Reports VI–IX.

Exhaustive reports, with maps showing positions of the lighthouse and light vessel stations to which schedules are sent.

BROWN, J. J.
1876. The American Angler's Guide, etc. 5th ed. *8vo. pp. 421. illust. New York.*

BROWN, J. M. **1895.** *See* CRAWFURD, OSWALD.

BROWN, NATHAN CLIFFORD.
1882–9. [Extract from the Proceedings of the Portland Society of Natural History, Dec. 4, 1882.] A catalogue of the birds known to occur in the vicinity of Portland, Me. *8vo. pp. 40.* Author's separate. *Portland, Me.*

Compiled from notes accumulated during 12 years. It contains the names of 250 species and subspecies. Fifty author's copies only were issued, the distribution of the main edition being delayed till June 14, 1889, when some supplementary notes were added, pp. 37–40, including the occurrence of eight new species.

BROWN, PETER [*fl.* 1776].
1776. New illustrations of zoology, containing fifty coloured plates of new, curious, and non-descript birds, with a few quadrupeds, reptiles and insects. *4to. pp. 4+136. 1 col. pl.* Added t.-p.: Nouvelles illustrations de zoologie. Descriptive letterpress in French and English. *London.*

Original illustrations from specimens in the collections of Marmaduke Tunstall, the British Museum, and the Royal Society. The author was known also as a flower painter, exhibiting at the Royal Academy from 1770 till 1791.

BROWN, ROBERT NEAL RUDMOSE [1879–].
1923. A naturalist at the poles; The life, work & voyages of Dr. W. S. Bruce, the polar explorer; with five chapters by W. G. Burn Murdoch. 38 illust. and 3 maps. *8vo. pp. 11–316. front. (portr.). 25 pl. 3 maps (2 col. fold.). 5 figs. T. of c. bibliogr. index. London.*

Written largely from Bruce's unpublished diaries, papers, and letters. Chapters II, III, IV, V, and XXV are by Murdoch, the remainder by Brown. References to birds are numerous and occur throughout the book, with three illustrations. An American edition appeared in 1924.

1924. A naturalist at the poles; the life, work and voyages of W. S. Bruce, the polar explorer; with 5 chapters by W. G. B. Murdoch. 38 illust. and 3 maps. *8vo. pp. 11–316. front. (portr.). 25 pl. 3 maps (2 col. fold.). 5 figs. T. of c. bibliogr. index. Philadelphia.*

The American print, which differs in no way whatever from the British edition.

BROWN, *Capt.* THOMAS [1785–1862].
1833. The zoologist's text-book, embracing the characters of the classes, orders and genera of almost the whole animal kingdom; together with an example of a species of nearly each genus, and a complete glossary of technical terms. Illustrated by one hundred and seven engravings on steel. *2 vols. in 1. cap. 8vo. pp. xii+578+(12). front. 105 pl. T. of c. glossary. index. Glasgow.*

The reference to birds will be found in vol. I, under the heading, Aves, pp. 151–282, plates nos. XXXV–LXVIII, depicting 297 species of birds together with three diagrams, all of which are by R. Scott, and, although small, are quite good. A glossary is also supplied at the end of the volume, pp. 573–8. This work is a rarity.

1834. Illustrations of the game birds of North America, chiefly the size of nature. *folio. engr. title. 16 col. pl. London.*

These hand-colored plates are mostly original; others are copied, with modifications, from the works of Bonaparte and Wilson. The present atlas is apparently an early copy, with the backgrounds of the pictures colored. Also the plate paper is watermarked 1830–4. In the second issue the backgrounds are plain and the watermark 1835. In any state the book is a very rare ornithological item. *See* Walter Faxon (*Auk*, vol. 20, 1903, p. 236) for a full account of this important work.

1835. Illustrations of the American Ornithology of Alexander Wilson and Charles Lucien Bonaparte Prince of Musignano. With the addition of numerous recently discovered species and representations of the whole sylvae of North America. *folio. pp. iv+124. col. pl. Edinburgh.*

This very rare brochure (no copy in the library of the British Museum) has only three pages of introductory text, which is occupied by a Systematic Index, 'the arrangement being that of Temminck, slightly altered, with the addition of some new genera. 161 birds have been added by the editor [to those described and depicted by Wilson and Bonaparte], and 87 birds have been considerably enlarged', each indicated by special marks. Legends furnish both the common and systematic names. The plates are very fine, some of them being renumbered in MS. or by Roman numerals pasted over the former numbers. The botanical additions, including the floral backgrounds, are of the first order of portraiture. This atlas is said to have been published as a supplement to the 1831 edition of Wilson (q.v.). The 124 hand-colored plates show 523 figures of birds.

1836. The taxidermist's manual; or, The art of collecting, preparing and preserving objects of natural history, for the use of travellers, conservateurs of museums, and private collectors. 3rd ed. *12mo. pp. xii+150. 4 (of 6) engr. pl. index and T. of c. Glasgow.*

Mullens and Swann say that this well-written and popular little work went through more than 20 editions.

1840. *See* GOLDSMITH, O., 1840–3.

1846. Illustrations of the genera of birds, embracing their generic characters; with sketches of their habits. *Nos. 1–14 in 1 vol. folio. Title to Part (vol.) I, dedication, 55 leaves of irregular text, and 59 pl. (56 col.).* (All pub.)

Author's autographed presentation copy to Mrs. G. Stanley Darbishire, Manchester, December 31, 1859. It has been compared by Mr. Gregory M. Mathews with an example in his possession, the latter being in the 14 original numbers. Mr. Mathews has numbered each leaf of text and every plate in accordance with the original numbers. Mullens and Kirke Swann give a correct statement of contents, but are in error in stating that the number of parts issued was 16. This, like the two other large books of Captain Brown, is of great rarity.

n.d. Macaws cockatoos, parrakeets, and parrots; &c. *See also* LAUDER, *Sir* T. D.

BROWNE, ALEXANDER MONTAGU.
1889. The vertebrate animals of Leicestershire and Rutland. 4 pl. and map. *4to. pp. xii+223. front. (map col.). 4 pl. (2 col.). addend. index. Birmingham.*

A table is also given showing the arrival of summer migrants in Leicestershire from 1843–55 and 1877–88.

BROWNE, DANIEL JAY [b. 1804].
1851. The American bird fancier; considered with reference to the breeding, rearing, feeding, management, and peculiarities of cage and house birds. *12mo. pp. 107. front. 28 figs. index. New York.*

A compilation. Another edition was issued in 1857 (q.v.

1857. The American bird fancier. *pp. 107. 29 figs. index.* *New York.*

Another edition of a small treatise on the breeding, rearing, and management of wild birds in captivity.

1884. The American bird fancier. New ed. rev. and enlarged. *New York.*

BROWNE, *Sir* THOMAS [1605–82].

1650. Pseudodoxia epidemica: or, Enquiries into very many received tenents, and commonly presumed truths. 2nd ed. *4to. pp. (16)+329. table (index).* *London.*

A curious old work by the author of the famous *Religio medici*, divided into four books; the third containing the popular and received tenents concerning animals; that 'a Kingfisher hanged by the bill sheweth where the wind is', that 'a Pigeon hath no gall', and so forth, pp. 85–152. The first edition was published in 1646, and a third in 1658. Marginal notes by a previous owner are found in the present copy. The Osler library has the *editio princeps* (1646) as well as the above printing, and nine other editions in English, Dutch, and French.

1902. Notes and letters on the natural history of Norfolk, more especially on the birds and fishes, from the mss. of Sir Thomas Browne . . . in the Sloane collection in the library of the British museum and in the Bodleian library, Oxford; with notes by Thomas Southwell. *8vo. pp. xxvi+102. front. (letter). T. of c. 4 append. index.* *London.*

References to birds figure throughout the volume, more especially on pp. 1–30, 'Notes on certain birds found in Norfolk', and also in the letters to Merrett, pp. 57–85, as well as in the four appendices, pp. 86–98, and the introductory note by Thomas Southwell, pp. i–xxvi. The frontispiece is a facsimile of a portion of a letter from Sir Thomas Browne to Dr. Merrett showing the difficulty of deciphering his handwriting.

BRUCE, CHARLES.

1924. Twenty Years in Borneo. *8vo.* *Boston.*

BRUCE, WILLIAM SPEIRS [1867–1921].

1907. Life in the Antarctic. (The Scottish National Antarctic expedition.) *24mo. pp. 67. 60 photos.* *London.*

This little book forms vol. 10 of *Gowan's Nature Books*. The first edition was issued in January 1907, the present copy being a reprint of February of the same year.

1923. A naturalist at the poles; the life, work & voyages of Dr. W. S. Bruce. *See* BROWN, R. N. R.

1924. The American edition, identical with the foregoing.

BRUCH, CARL W. L. [1820–84].

[**1853**]. Monographische Uebersicht der Gattung Larus Lin. *8vo. pp. [13].*

Author's excerpt from *Journ. f. Ornith.*, Jahrg. 1, 1853.

BRÜCKNER, PAUL.

[**1913**]. Wie baue ich mir billig Brutapparate, Kückenheime und Fallennester? 4te Aufl. *8vo. pp. 128. 72 text-figs.* *Leipzig.*

Handbook on artificial nests, incubators, and other apparatus for bird culture.

BRUETTE, WILLIAM ARTHUR [1873–].

[**1923**]. Sportsmen's encyclopedia. *8vo. pp. 319. 98 figs. T. of c. 6 indexes.* *New York.*

A compilation useful and necessary to the sportsman, with numerous illustrations, some of which are of game birds and the art of shooting them. *Forest and Stream* publication.

BRUIN, NICHOLAS DE. *Artist-illustrator.*

1594. Volatilium varii generis effigies in tyronum . . . aeri incisa. *8vo. 13 cop. pl. including title. no text.* *Antwerp.*

One of this celebrated engraver's numerous small albums, the present copy containing 'Mancherley vögel, vligen, mucken, und schnecken eigentliche figuren, ausgangen durch A. Londerseel'.

BRUNER, HENRY LANE.

1929. Laboratory directions in college zoology. *8vo. pp. 14+163.* *New York.*

BRUNER, LAWRENCE [1856–].

1896. Some notes on Nebraska birds; a list of the species and subspecies found in the state, with notes on their distribution, food-habits, etc. Corrected to April 22, 1896. [Author's reprint from the Report of the Nebraska State Horticultural Society, 1896.] *8vo. pp. 48–178. 51 figs. append. index.* *Lincoln, Neb.*

The list proper includes brief annotations on distribution and in some cases remarks on the bird's food and its value to the agriculturist. Four hundred and fifteen species and subspecies are recorded.

1904. A preliminary review of the birds of Nebraska, with synopses. *8vo. pp. 116+(10). 9 figs. (diagr.). index.* *Omaha, Neb.*

An annotated list of the species with keys for their determination and for the separation of families and orders. Originally published, with some differences, in the *Annual Report, Nebraska State Board of Agriculture for the Year 1903*, 1904. Walcott, R. H. and Swenk, M. H. collaborated with the author.

BRUNET, JACQUES-CHARLES [1780–1867].

1860–80. Manuel du Libraire et de l'amateur de livres. 6 tomes et 2 suppléments. *8vo.* *Paris.*

The Blacker copy, the *Exemplaire de M. Paul Didot*, is bound in 14 vols. It is a well-known bibliographical work of reference indispensable to all good libraries.

BRÜNN.

1863–*date*. Verhandlungen des Naturforschender Verein. Bd. 1– . *8vo.* *Brünn.*

BRÜNNICH, MORTEN THRANE [1737–1827].

1764. M. Th. Brünnichii Ornithologia borealis, sistens collectionem avium ex omnibus, Imperio danico subjectis, provinciis insulisqve borealibus Hafniae factam, cum descriptionibus novarum, nominibus incolarum, locis natalium et icone. *8vo. pp. 8+80. 1 pl. (fold.). append.* *Hafniae.*

Ornithology of all the provinces subject to Denmark. The Skua Gull or Brünnich's skua (*Catharacta skua*) is entered in the *Brit. Mus. Cat.* XXV. 315 as *Megalestris catarrhactes* and the Arctic Gull or Richardson's skua (*Catharacta cepphus*) of which there is a plate here, is entered as *Stercorarius crepidatus*, for reasons which are not obvious. The E.S.W. Library copy of this very rare title was presented by Mr. Gregory Mathews.

BRUNSKILL, E.

1920. Canary culture for amateurs. *8vo. pp. xi+115. 45 figs. T. of c.* *London.*

BRUSH HILL BIRD CLUB.

1914. First Report. *See* REPORT OF BRUSH HILL BIRD CLUB. *Milton, Mass.*

BRUSINA, SPIRIDION [1845–].

1906. L'ornitologia della Bulgaria, del Montenegro e della Grecia del Reiser. *4to. pp. 31.* *Siena.*

Author's reprint from *Avicula*, Anno X, N. 101–2, 1906.

BRUSSELS.—Musée Royal d'Histoire Naturelle de Belgique.

1877–87. Annales.

1882–8. Bulletin.

1900–*date*. Mémoires.

BRUSSELS.—Musée du Congo Belge.
1898–*date.* Annales—Zoologie.

BRUSSELS. *See* ACADÉMIE ROYALE DES SCIENCES . . . DE BELGIQUE.

BRUTON, F. A. *See* CORMAC, W. E., 1928.

BRYAN, WILLIAM ALANSON [1875–].
1901. A key to the birds of the Hawaiian group. *folio. pp. iv+5–76. pl. XVI–XXX. 17 figs. in text.* (Bernice Pauahi Bishop museum. Memoirs, vol. 1.) Author's excerpt. *Honolulu.*
Useful identification tables of Hawaiian birds. The photoplates are well made. The volume is supplied with an index, which includes the synonymy of the bird lists.

BRYANT, HENRY.
[**1859**]. A list of birds seen at the Bahamas, from Jan. 20, to May 14, 1859, with descriptions of new or little known species. *8vo. pp. 32.*
An annotated list of about 87 species.

BRYDEN, HENRY ANDERSON [1854–].
1899. Great and small game of Africa; an account of the distribution, habits and natural history of the sporting mammals, with personal hunting experiences. *folio. pp. 20+612. illust. pl. London.*
Appendix and supplement included.

1909. Animals of Africa. 2nd ed. *8vo. pp. xvi+240. front. 11 pl. 28 figs. T. of c. index.* Illust. by E. Caldwell. *London.*
A popular account intended principally for boys. The section relating to birds is Pt. II, pp. 109–66, with three plates and seven figures.

BUCHANAN, ANGUS [1886–].
1920. Wild Life in Canada, etc. *8vo. pp. 20+264. 15 pl. T. of c. London.*
This interesting volume relates mainly to the natural history of the Canadian North-west and lists much of the flora and fauna of this somewhat neglected portion of the continent. Birds are considered on pp. 219–64.

1922. Exploration of Air; out of the world north of Nigeria. *8vo. pp. 24+258. pl. map. New York.*

BUCHANAN, HAMILTON FRANCIS [1762–1829].
1822. An account of the Fishes in the river Ganges and its branches. *pp. 7+405. atlas. 39 pl. London.*
A useful, though early, systematic description of inland Indian fishes.

BUCHANAN, JOHN.
1793. Travels in the Western Hebrides. *1 vol. London.*

BUCHANAN, ROBERT.
1868. The life and adventures of J. J. Audubon. *See* AUDUBON, J. J.

BUCHHEIM, EMMA S.
1908. How to attract and protect wild birds, by M. Hiesemann. *See* HIESEMANN, MARTIN.
1911. [Same title as foregoing.] 2nd ed.
1912. [Same title as foregoing.] 3rd ed.

BUCHHOLZ, REINHOLD WILHELM [1837–76].
1880. Reisen in West-Afrika, nach seinen hinterlassenen Tagebüchern und Briefen nebst einem Lebensabriss des Verstorbenen von Carl Heinersdorff. *8vo. pp. 8+264. illust. map. Leipzig.*
Buchholz originally accompanied Dr. Reichenow to West Africa, but on their arrival at the Cameroons the parties separated. Buchholz made a collection of birds many of which were destroyed by rats. His chief concern was with zoological material other than birds, and in this he was very successful.

BUCHNER, L.
1876. Aus dem Geistesleben der Thiere, etc. *8vo. pp. 370. Berlin.*
A sympathetic study of the psychology of animals.

BUCHNER, PAUL [1886–].
1926. Tierisches Leuchten und Symbiose. *8vo. pp. 58. illust. Berlin.*

BUC'HOZ, PIERRE JOSEPH [1731–1807].
1783. Trésor des laboureurs dans les Oiseaux de la basse-cour, etc. *Paris.*

BUCK, WALTER J. **1893.** *See* CHAPMAN, ABEL.

BUCKLAND, FRANCIS TREVELYAN [1826–80].
1859. Curiosities of natural history. 4th ed. *8vo. pp. (2)+xvi+319. front. 2 pl. T. of c. London.*
References to birds are on pp. 136–9, the Heron as an enemy to rats; sagacity of the fowls in Jamaica; Birds and the electric telegraph. The 1st edition was published in 1857, the 2nd, in 1858, with a new series in two vols. in 1866.

1875. *See* WHITE, *Rev.* GILBERT.

1875. Log-book of a fisherman and zoologist. *8vo. pp. xiv+(2)+407. front. 3 pl. 26 figs. T. of c. index. London.*
References to birds are scattered throughout the pages of this book; the woodpecker and the bittern, pp. 144–50; use of the gular pouch of the Bustard, pp. 118–22; Golden eagle from Sutherlandshire, pp. 261–70.

1877. *See* AUSTEN, NATHANIEL LAURENCE.

1880. Natural History of British Fishes. *8vo.*

1882. Notes and jottings from animal life. Illust. *8vo. pp. viii+414. front. (portr.). T. of c. London.*
The substance of these papers had already appeared in *Land and Water*, and the *Leisure Hour.*

n.d. The Ludgate School-Books The Frank Buckland reader; selected readings from 'Curiosities of natural history'. 73 illust. *12mo. pp. viii+248. front. 72 figs. T. of c. London.*
Taken from the author's *Curiosities of Natural History.*

BUCKLAND, WILLIAM [1784–1856].
1823. Reliquiæ diluvianæ; or Observations on the organic remains contained in caves, fissures, and diluvial gravel, and on other geological phenomena, attesting the action of an universal deluge. *4to. pp. vii+303. 27 pl. (2 col., 1 fold.). 1 tab. (fold.). T. of c. index. London.*
The caves here referred to are situated in England, Wales, and Germany, the remains of birds found being very small indeed as compared with mammals. The principal references consist of bones found at Kirkdale, p. 15 (chiefly wing bones), birds in the diluvium of England, p. 27, and bones at Paviland and Gibraltar, pp. 93 and 155.

BUCKLEY, THOMAS EDWARD [1846–1902].
[**1887**]. A vertebrate fauna of Sutherland, Caithness and West Cromarty. *See* HARVIE-BROWN, J. A.
1888. A vertebrate fauna of the outer Hebrides. *See* HARVIE-BROWN, J. A.

1891. A vertebrate fauna of the Orkney Islands. *4to. pp. xxiv+314. 7 pl. 1 map (col. fold.). 6 figs. T. of c. append. index.* *Edinburgh.*

References to birds in the introduction, pp. xvii–xxiv, in the description of the physical features of the islands, pp. 1–59, as well as in the annotated list of the 223 species accorded to the district. It also included Sutherland and may be regarded as the best of many local faunal publications descriptive of the wild life of northern Scotland.

1892. A vertebrate fauna of Argyll and the inner Hebrides. *See* HARVIE-BROWN, J. A.

1895. A fauna of the Moray Basin. *See* HARVIE-BROWN, J. A.

1899. A vertebrate fauna of the Shetland Islands. *See* EVANS, A. H.

BUCKNILL, JOHN ALEXANDER STRACHEY [1873–].

1900. The birds of Surrey. *8vo. pp. lvi+374. 6 pl. (photogr.). 13 cuts in text. map. T. of c. index.* Extra-illustrated with 20 col. pl. from Lilford's Birds. Bibliography in pref., pp. 15–19. *London.*

A popular and well illustrated brochure on local birds with an account of the distribution, habits, nidification, etc. The extra-illustration of the present copy adds much to its value as a guide to the identity of species.

1902–20. *See* VICTORIA HISTORY OF THE COUNTIES OF ENGLAND.

1927. The birds of Singapore Island. In collaboration with F. N. Chasen. *8vo. pp. vi+247. 31 col. pl. T. of c. 2 indexes.* *Singapore.*

A semi-popular work. The letterpress is arranged under the following headings: (1) Description, (2) Distribution, (3) Status in Singapore, (4) Field Notes, and (5) Other habits.

BUDAPEST. [Fauna of (old) Hungary.]

1900. Fauna Regni Hungariae, etc. *3 vols. 4to.* In Hungarian. (Wanting.) *Budapest.*

This comprehensive and valuable treatise does not deal with all the vertebrates, but as part of the biology of Lake Balaton (50 miles S.W. of Budapest) E. von Daday describes the fishes; L. von Méhelÿ the amphibia and reptiles; A. von Lavassy the birds. There is an introduction to each section in both Hungarian and Latin.

BUDAPEST. Magyar Nemzeti Múzeum.

1903–*date*. Annales Historico-Naturales. *See also* TERMÉSZETRAJZI FÜZETEK.

BUDGETT, JOHN SAMUEL [1872–1904].

1907. The work of John Samuel Budgett, Balfour student of the University of Cambridge: being a collection of his zoological papers, together with a biographical sketch. *pp. x+494. front. (portr.). 28 pl. (partly col.). 173 figs. T. of c. index.* *Cambridge.*

The Budgett Memorial Volume, containing reprints of his various Zoological papers. References to birds will be found in the biographical sketch by A. E. Shipley, pp. 1–55, in the account of the journey to Uganda, pp. 185–92, the principal one, however, being on the ornithology of the Gambia river, pp. 143–53, with an outline map of the Gambia river, fig. No. 13. The list consists of about 110 species.

BUEKERS, P. G.

1903. De vogels van Nederland; lijsten voor het bepalen van alle tot nu toe in Nederland waargenomen vogels. *12mo. pp. 12+164. 4 pl. 1 fig.* *Zutphen.*

A useful list of the various groups of the avifauna inhabiting the Netherlands. Both the Dutch and systematic names (after Schlegel), with a description of each, is furnished, but no figures of the birds are given. An index of both scientific and vernacular names is appended.

BUENOS AIRES. Jardin Zoológico.

1893. Revista.

BUENOS AIRES (City). Museo nacional de historia natural.

1894–7. Memoria (all pub.).

BUENOS AIRES. Sociedad Argentina de Ciencias Naturales. 1918–19. Actas, etc.

BUERGER, OTTO.

1900. Reisen eines Naturforschers im tropischen Südamerika. *8vo. pp. 6+395. 16 pl. illust. in text.* *Leipzig.*

The writer is a well-known naturalist whose observations are generally accurate and worth the readers attention. He is, for instance, one of the contributors to the *Fauna Arctica* of Roemer and Schaudinn, though not on a vertebrate zoologic subject.

BUFFALO SOCIETY OF NATURAL SCIENCES.

1873–*date*. Bulletin.

1920–*date*. Hobbies.

1928–*date*. Annual Report.

BUFFON, G. L. L. DE [1707–88] and **others.**

1749–1804. Histoire Naturelle . . . avec la description du Cabinet du Roi. *44 vols. 4to. illust. Paris.*

This, the first and most complete work of the famous naturalist, was completed after more than 50 years toil, with the aid of other celebrated zoologists, L. J. M. Daubenton, P. Guéneau de Montbeillard, G. L. C. A. Bexon, and Count de Lacépède. The combined treatises discuss the whole range of the animal, vegetable, and mineral kingdoms and form a veritable mine of information not only much utilized by subsequent investigators but separately published more or less in variant editions by the writers themselves.

1766–99. Histoire naturelle, générale et particulière avec la description du cabinet du roi par [G. L. L.] de Buffon & [L. J. M.] Daubenton. Nouvelle éd. *36 vols. in 19. 4to. pl. maps.* *Amsterdam.*

CONTENTS. 1–15. Quadrupèdes. [16–24]. Oiseaux. [25–9]. Minéraux. [30–6]. Supplément.
Vols. [16–29] & [36] pub. Dordrecht, A. Blussé & fils.

One of the earlier but very important editions of a fundamental and famous treatise on natural history. The Blacker Library copy has the 22 vols. on mammals bound as 15; on birds, 9 vols. as 5.

1770–86. Histoire Naturelle des Oiseaux. *10 vols.*

The avifauna of the *Histoire naturelle.*

1771–4. Allgemeine Naturgeschichte. *7 vols.*

1771–86. Histoire naturelle des oiseaux. *10 vols. folio. col. illust.* *Paris.*

This is a large paper issue of a portion of the text of the original edition with the *Planches enluminées*, engraved by Martinet under the supervision of E. L. Daubenton, with the collaboration of P. G. de B. Montbeillard. One of the most extensive, important, and early works on ornithology. It is really a second edition of Buffon's nine volumes on birds in the first edition of his *Histoire Naturelle Générale.* The avian species are mostly described under their vernacular names but are easily identified by the discussion of their physical characters, habits, etc. Zimmer (*Cat. Ayer Library*, p. 105) gives a complete account of this remarkable work, a portion of which I quote as follows: 'Buffon, in 1749, began the publication of his *Histoire Naturelle Générale* (q.v.), completed in 1804 (after his death), in 44 quarto volumes. Of these, the nine volumes of birds (vols. 23–31) appeared from 1770 to 1783. A separate edition of the same work in 71 volumes, 12mo, was begun in 1752 and completed in 1805, of which the ornithology occupied 18 volumes (vols. 47–64). In 1765 Daubenton the younger (whose father was collaborator with Buffon in the *Hist. Nat. Générale*), instigated by Buffon, commenced the publication of a series of 1,008 colored plates, 973 of which are of birds, drawn by Martinet. These were

[**BUFFON**, G. L. L. DE and **others** (*contd.*)]

issued without text other than the vernacular names (often from Brisson) on their legends. They appeared in promiscuous order in 42 "cahiers", from 1765 to 1780 or a little later in both large and small folio, and appear to lack any definite title or title-page, although the collection seems always to have been known as "Daubenton's Planches Enluminées".

'Daubenton's work seems to have been intended originally to illustrate the volumes of *Oiseaux* of Buffon's *Hist. Nat. Générale*, even though the latter did not commence until the plates were in course of publication. Buffon (*Hist. Nat. des Oiseaux*, i, pp. vj–ix and vii, p. ij) and Boddaert (Table, p. viii) both credit the enterprise with that definite purpose. However, in view of the limited edition of the colored plates—insufficient to provide a set for each copy of the *Hist. Nat. Générale*—a new set of 262 black-and-white plates was prepared for the ornithological volumes of that work (cf. Buffon, *Hist. Nat. des Oiseaux*, i, p. ix). At the same time Buffon produced, in ten volumes, a special edition of the ornithology (in both large and small folio) under the title transcribed above, designed expressly to accompany Daubenton's plates. Each volume contains a list of these plates with the order of arrangement and references to the pages where they are to be inserted in the volume, and the text refers to them simply as "les planches enluminées, No. ". No reference is made in the text to 35 non-ornithological plates which accompany the present set (and other recorded sets) of the work, except as they are included in the total number of plates mentioned in vol. vii, p. ij.'

1772–1809. Herrn von Buffons Naturgeschichte der Vögel. Aus dem Französischen übersetzt, mit Anmerkungungen, Zusätzen, und vielen Kupfern vermehrt, durch Friedrich Heinrich Wilhelm Martini. *35 vols. 8vo.* Vol. I, *pp. 4+276. About 300 pp. in each of the other vols. T. of c. in each vol. col. fronts. 1,575 col. pl.* *Berlin.*

One of the most valuable of the many editions of this remarkable work. It is impossible to overrate Buffon's early and important contributions to the science of ornithology. The illustrations in the present edition are drawn from several sources, but most of them are prints from the plates of the original French treatise. For a complete appreciation of Buffon's *Oiseaux* the annotator refers the student to Zimmer's *Catalogue of the Ayer Library*, Field Museum, Chicago, p. 104 et seq.

1774. Histoire naturelle générale et particulière. Œuvres complètes. *49 vols. 8vo.* *Paris.*

1778–1864. Œuvres complètes. *6 vols. col. pl.* *Paris.*

1780. Les Époques de la Nature. *2 vols.* *Paris.*

1785–91. Histoire naturelle, générale et particulière. Tomes 1–13. Oiseaux, 1–14. Quadrupèdes, 1–14. Minéraux, 1–9. *12mo.* [O.] *Deux-Ponts.*

A complete set of this important edition is also in the E.S.W. Library. There are in the latter altogether 54 volumes, the volumes devoted to birds being bound as 17.

1791. The History of Singing Birds, etc. Trans. *8vo.* *Edinburgh.*

1791. The System of Natural History, etc. *2 vols. (in 1). 8vo.* *Perth.*

[**1792**]. Buffon's natural history abridged. A new ed. *2 vols. 8vo.* Vol. I, *pp. xxxvii+353. front. 40 pl. T. of c.* Vol. II, *pp. (2)+494. 67 pl. glossary. index.* *London.*

A popular abridgement of Buffon's more expensive and bulky works, the portion pertaining to the birds being found in vol. ii, pp. 1–149, with 114 illustrations, pl. nos. 41–75.

1792–3. Natural history of birds; tr. from the Fr. [by William Smellie]. *9 vols. 8vo. 262 uncol. pl. Index to the whole work end of ninth vol.* *London.*

One of the numerous English translations of the famous *Histoire Naturelle* as given by the sub-title: 'Illustrated with engravings; and a preface, notes, and additions [appendix] by the translator'.
1792. Vol. I, *pp. 412. pl. 1–29.*
1793. Vol. II, *pp. 496. pl. 30–56. T. of c.*
1792. Vol. III, *pp. 456. pl. 57–87. T. of c.*
1793. Vol. IV, *pp. 481. pl. 88–114. T. of c.*
1793. Vol. V. *pp. 536. pl. 115–36. T. of c.*
1793. Vol. VI, *pp. 585. pl. 137–61. T. of c.*
1793. Vol. VII, *pp. 530. pl. 162–92. T. of c.*
1793. Vol. VIII, *pp. 448. pl. 193–231. T. of c.*
1793. Vol. IX, *pp. 504. pl. 232–62. index.*
According to the title-page dates these volumes were irregularly issued. The book-making of the edition is excellent.

1793. Buffon's Natural History (Barr). *15 vols. 8vo.*

Another of the many printings, English and other, of Buffon's famous work.

1799–1805. (An. VII–XIII.) Histoire Naturelle . . . nouvelle édition, accompagnée de Notes . . . par C. S. Sonnini. *64 vols. 8vo. col. ill.* (Suites.)

This well-known edition is divided into two parts, the first (64 vols.) the original work enlarged and edited by Sonnini, P. A. Latreille, and F. M. Daudin, and a collection of appendices—the first collection of the so-called 'Suites à Buffon'—mainly on Cetacea, Reptilia, Pisces, Mollusca—by these authors with the additional aid of Lacépède, Denys-Montfort, Brisseau-Mirbel, Jolyclerc, and P. Sue.

1799–1808. Histoire naturelle, générale et particulière. Nouvelle éd., accompagnée de notes . . . rédigée par C. S. Sonnini. *127 vols. 8vo. pl.* *Paris.*

A variant—especially in binding and title-pages—of the Sonnini edition of 1799–1805.

1814. The system of natural history, carefully abridged. Engr. on wood. *4 vols. 16mo.* Vol. I, *pp. iv+iii–vi+9–336. 63 figs. T. of c.* Vol. II, *pp. iv+9–324. 112 figs. T. of c.* Vol. III, *pp. iv+9–332. 117 figs. T. of c.* Vol. IV, *pp. iv+9–308. 28 figs. T. of c. index.* *Alnwick.*

Another popular abridgement of Buffon's more expensive and bulky work, the portion on birds in vol. ii, pp. 219–324, with 49 illustrations, and vol. iii, pp. 9–92, with 53 illustrations.

1819. Œuvres Complètes; mises en Ordre par le Comte de Lacépède. 2nd ed. *25 vols.* Bound with Histoire Nat. des Quadrupèdes-ovipares et poissons par le Comte de Lacépède suite et complément de Buffon, 5 vols.; in all 30 vols. *Paris.*

1828–33. Œuvres complètes de Buffon, suivies de ses continuateurs Daubenton, Lacépède, Cuvier, Duméril, Poiret, Lesson et Geoffroy-St.-Hilaire. Seule éd. complète. *20 vols. 8vo. pl. maps.* *Bruxelles.*

CONTENTS. Vols. 1–4. Théorie de la terre. 5. Histoire naturelle de l'homme. 6–10. Mammifères. 11–14. Oiseaux. 15–20. Planches.

An important and well-known edition of the great treatise of Buffon, issued at Brussels by Lejeune. The contributors to this work included the most celebrated naturalists in France.

1834–74. (Collection des) Suites à Buffon, formant avec les œuvres de cet auteur un cours complet d'Histoire Naturelle. *8vo. pl.* *Paris.*

The 82 vols. in the McGill Library contain everything from these well-known addenda to the original treatise of Buffon that concerns vertebrate zoology and much that does not concern that subject. Among the famous collaborators were H. Milne Edwards, R. P. Lesson, Geoffroy Saint-Hilaire, G. F. Cuvier, G. Bibron, L. Vaillant, and many others. Nearly all the *Suites* have been separately published. See *Cat. Br. Mus.* (*Nat. Hist.*), i, p. 283.

1836–70. Suites à Buffon, Cours complet d'Histoire Naturelle.
Cétacés. Par F. Cuvier. (1836.) 1 vol.
Reptiles. Par Duméril et Birron. (1834–41.) 9 vols.
Poissons. Par A. A. Duméril. (1865–70.) 2 vols.

1837–40. Sämmtliche Werke. (Vierfüsse Thiere, 2 vols.; Vögel, 3 vols.; Allgemeine Gegenstände, 4 vols.) Pl. Köln, 9 vols.

Probably a rare German edition.

1841. The book of birds: edited and abridged from the text of Buffon by M. Achille Comte. Illustrated by one hundred and fifty designs, by

Victor Adam. Tr. from the original by Benjamin Clarke. *8vo. pp. 34+292. 38 col. pl.* *London.*

One of the many English translations and adaptions of Buffon's celebrated *Histoire Naturelle.*

1852. Histoire naturelle; rev. réduite et précédée d'introd. par Achille Comte et Charles d'Orbigny. Oiseaux. *8vo. pp. 24+312. front. portr. of author. T. of c. index.* *Paris.*

This rare edition, not catalogued by the Br. Mus. Nat. Hist., or the Zoological Soc., is illustrated by 150 hand-colored figures (plates) by Victor Adam. The colored illustrations are irregularly numbered and distributed throughout the work, but a paged table indicates their whereabouts. This work (probably based on the English edition of 1841) may be regarded as an amended printing with further observations by the two editors, Comte and D'Orbigny.

1853–7. Œuvres complètes avec la nomenclature Linnéene et la classification de Cuvier; rev. sur l'édition in 4 de l'Imprimerie Royale et annotées par M. [J. P.] Flourens. *12 vols. 4to. pl. maps.* Oiseaux: Vol. V, *pp. 597. col. front.* Vol. VI, *pp. 586. col. front.* Vol. VII, *pp. 624. col. front.* Vol. VIII, *pp. viii. col. front.* *Paris.*

CONTENTS. Vol. 1. Théorie de la terre—Histoire générale des animaux. 2. L'homme—Les quadrupèdes. 3. Les quadrupèdes. 4. Les singes—Additions aux quadrupèdes. 5–8. Oiseaux. 9–11. Minéraux. 12. Expériences sur les végétaux, arithmétique morale et Tables, analytiques et raisonnées des matières contenues dans l'ouvrage entier. Pref. date Oct. 1, 1855.

The title-page truthfully states this to be a new edition illustrated by 150 steel engravings after drawings by Traviès and Henry Gobin and colored with the greatest care. It is one of the best editions of the master placed upon the market, albeit among the rarest.

n.d. Œuvres complètes. Ed. by M. A. Richard. *5 vols. pl.* *Paris.*

****** and others.**

n.d. Raccolta di 125 tavole di Uccelli relative alla Storia Naturale del Buffon . . . et al. *1 vol.*

A rather rare Italian edition of Buffon's *Birds.*

BUHLE, CHRISTIAN ADOLPH.

1818–28. Die Eier der Vögel Deutschlands und der benachbarten Länder, &c. *See* NAUMANN, J. F.

1835. Die Naturgeschichte in getreuen Abbildungen. Vögel. *184 col. pl.* *Leipzig.*

1842–5. Naturgeschichte der domesticirten Vögel in ökonomischer und technischer Hinsicht; ein Hand- und Hülfsbuch für Jedermann besonders für Stadt- und Landwirthe. *6 vols. in 1. 8vo. pp. (12)+498. 6 front. (col.). index.* *Halle.*

Technical handbook on domesticated birds; swan, goose, duck, peafowl, turkey, guinea-fowl, common fowl, pigeon, and cage-birds.

1880. Die Vögel von Mittel-Europa und ihre Eier. *See* GRÄSSNER, FÜRCHTEGOTT.

BÜHLER, *Capt.* and **SARWEY,** *Genl.*

1890. Von den Vögeln zum Balkan. *2 vols. 8vo. illust.* Vol. 1, von Bühler; vol. 2, von Sarwey. *Magdeburg.*

BUIST, K. A.

1874. Birds: their Cages and their Keep. *12mo.* *London.*

BULL, HENRY GRAVES [1828–85].

1888. Notes on the birds of Herefordshire, contributed by members of the Woolhope Club. *8vo. pp. xxii+274. portr. T. of c. index.* Extra illustrated by 14 col. pl., by Keulemans, Thorburn, and Lodge. *London.*

A well written, accurate, popular description of the local birds.

BULLER, *Sir* WALTER LAWRY [1838–1906].

[1867]. Versuch über die Ornitologie Neu-Seelands, übersetzt und mit kritischen Anmerkungen versehen von Otto Finsch. *8vo. pp. 385–92+305–47. n.p.*

These notes (in reply to Finsch's criticisms, pp. 385–92) are dated June 10, 1868. In Dr. Finsch's annotated translation, several of Buller's new species are criticized.

[1869]. Notes on the ornithology of New Zealand. *8vo. pp. 385–92.* *London.*

A reply to the criticism by Dr. O. Finsch of the author's paper in the *Ibis* for January 1869, describing new species of birds from New Zealand. Copies of Dr. Finsch's paper, as well as the author's original article (from the *Ibis*) which evoked it, are appended.

1872–3. A history of the birds of New Zealand. 1st ed. *4to. pp. 24+384. 36 (35 col.) pl. 1 fig in text. T. of c. index.* *London.*

This well-known treatise was issued in five parts, and gives both the native and systematic names of the Island birds. Many of the original drawings for the colored lithographed plates, with Buller's marginal corrections and other notes, are in the Emma Shearer Wood Library, and are fine examples of Keulemans' work. The habits and other characteristics of 145 species are furnished. Only 500 copies of the work were issued. The dates of publication of each part will be found in Mathews' *Birds of Australia,* vol. 7, p. 447. The copy in hand has inserts of numerous clippings relating to the career of Sir Walter Buller.

1882. Manual of the birds of New Zealand. *4to. pp. 12+107. 37 pl. front. generic. T. of c. index.* (New Zealand, Colonial museum and geological survey Dept.) *Wellington.*

This list is an enlarged *Catalogue of the Birds of New Zealand* by F. W. Hutton, published in 1871. It describes 176 species and the plates are mostly reduced copies of illustrations from Keulemans' admirable drawings that adorn Buller's *History of the Birds of New Zealand.*

1887–8. A history of the birds of New Zealand. 2nd ed. *2 vols. folio. 36 pl. (35 col.). T. of c. index.* *London.*

A second edition of this famous work. It was issued by subscription and in 13 parts, and appears as a decidedly enlarged issue of the first edition printed in 1872. Moreover, the plates have been remade, giving clear impressions of the original drawings by Keulemans. Mathews (*Birds of Australia,* vii, p. 447) gives the contents and dates of issue of each number. A supplement (q.v.) in two volumes was published in 1905–6. Present copy is from the Godman library.

1888. A classified list of S. W. Silver's collection of New Zealand birds [at the Manor-House, Letcombe Regis] with short descriptive notes. *pp. 86. illust. index.* *London.*

An appraisal of a valuable collection of New Zealand birds, with short notes regarding the habits and distribution of each. There are many cuts in the text.

1890. Reviews and other notices of Sir Walter Buller's Birds of New Zealand. *8vo. pp. 64. 2 cuts.* *London.*

Printed 'for private circulation only'.

1895. Illustrations of Darwinism, etc. *8vo.* *Wellington.*

1905–6. Supplement to the Birds of New Zealand. *2 vols. folio. T. of c. index.* Vol. I, *pp. lx+200. front. portr. 5 col. pl. 32 text-figs.* Vol. II, *pp. 2+178. 12 col. pl. 14 text-figs. index to both vols.* *London.*

These supplementary volumes follow the high standard displayed in the original work, and much matter touching subjects already discussed in the author's *History* as well as a description of new species is duly set forth and depicted. The copy in hand is from the Godman library. Several of the original Keulemans 'patterns' for this work are in the E.S.W. Library.

BULLETIN OF THE AMERICAN ORNITHOLOGISTS' UNION. *See* AMERICAN ORNITHOLOGISTS' UNION—COMMITTEE ON PROTECTION OF BIRDS, BULLETIN.

BULLETIN DE L'ASSOCIATION DES NATURALISTES DE LA VALLÉE DU LOING.
1913–27. Année I–X. *Troyes.*

BULLETIN OF THE AUDUBON SOCIETY OF NEW HAMPSHIRE. *See* AUDUBON SOCIETY OF NEW HAMPSHIRE, BULLETIN.

BULLETIN OF THE AUDUBON SOCIETY OF THE WESTERN PACIFIC. *See* AUDUBON SOCIETY OF THE WESTERN PACIFIC, BULLETIN.

BULLETIN (SPECIAL) OF BAYLOR UNIVERSITY MUSEUM.
1927. No. 1. Waco. Notes on the Ornithology of McLellan Co. *Waco, Texas.*

BULLETIN BIOLOGIQUE DE LA FRANCE ET DE LA BELGIQUE. 1869–*date*. *Paris.*

BULLETIN OF THE BIRD CLUB OF PRINCETON UNIVERSITY. Edited for the Club by W. E. D. Scott, Princeton University, N.J. *8vo.* Vol. 1, no. 1, Sept. 1901. *pp. 82.*

The first number (probably all issued) contains a list of the Officers and Club Membership with a paper on the Birds of Princeton, N.J., by the President of the Club, William A. Babson. The announcement is made that 'the Club will issue further Bulletins at such intervals as the accumulation or importance of original matter may warrant'.

BULLETIN OF THE BREWSTER ORNITHOLOGICAL CLUB. *Worcester, Mass.*
1899. Bull. No. 1. *pp. 3.*

BULLETIN OF THE BRISTOL COUNTY ORNITHOLOGICAL CLUB. A quarterly magazine of Ornithology. 1887 (?).

This journal was advertised on a cover of the *Ornithologist and Oologist* for April 1887, to be issued May 1, 1887. Subscriptions to be sent to F. W. Andres, Taunton, Mass. However, the first number, thus advertised, was probably never issued, as on July 1, 1887, the *Ornithologist and Oologist* (q.v.) became the property as well as the official organ of the Club, subscriptions to the (proposed) Bulletin being credited on account of the former journal.

BULLETIN OF THE BRITISH OOLOGICAL ASSOCIATION. 1923–*date*. *See* BRITISH OOLOGICAL ASSOCIATION.

BULLETIN OF THE BRITISH ORNITHOLOGISTS' CLUB. Monthly. *12mo.* Vol. I edited by R. Bowdler Sharpe. Published by R. H. Porter. *London.*
1892–*date*. Migration reports were issued every two years, 13 of the 42 being thus devoted to the study of migration of British birds.

The British Ornithologists' Club was founded in 1892 mainly for the purpose of facilitating the social intercourse of members of the B.O.U. The Bulletin is accordingly largely a record of the agenda of meetings (dinners) at which members and visitors examine and discuss exhibited specimens, and listen to short papers, often illustrated by lantern slides. As part of these activities it was decided to issue (beginning with 1907) a biennial report on the migration of British birds as observed by members, and at various Lighthouses and Light-ships. This valuable serial was interrupted by the War. The membership of the Club is practically that of the B.O.U. and the list of contributors to the Bulletin are largely writers for *Ibis*.

BULLETIN OF THE BUFFALO SOCIETY OF NATURAL SCIENCES. 1873–*date*.

BULLETIN OF THE CHARLESTON MUSEUM, CHARLESTON, S.C. 1905–22.

BULLETIN OF THE COLORADO STATE HISTORICAL AND NATURAL HISTORY SOCIETY. 1923–*date*. *See* COLORADO MAGAZINE.

BULLETIN DU COMITÉ ORNITHOLOGIQUE INTERNATIONAL. *See* ORNIS.

BULLETIN OF THE COOPER ORNITHOLOGICAL CLUB OF CALIFORNIA. A Bimonthly magazine of Pacific Coast Ornithology.
1899. Vol. I. *pp. 120. index. illust.* Continued as The Condor (q.v.).

BULLETIN OF THE ESSEX COUNTY ORNITHOLOGICAL CLUB. Annual.

Vol. 1, No. 1, Dec. 1, 1919, 55 pp., was edited at Salem, Mass., by Ralph Lawson, Secy. of the Club. The first number was reviewed in the *Auk* and very properly described as 'a club periodical of the more serious type'. No. 2 (1920) and No. 3 (1921) contain articles by C. W. Townsend, Glover M. Allen, John C. Phillips, and Messrs. Edward H. Furbush, Winthrop Packard, and other well-known writers who sustain the impression of superiority made by the initial number.

BULLETIN OF THE FLORIDA AUDUBON SOCIETY, WINTER PARK. 1919–*date*. *See* FLORIDA AUDUBON SOCIETY.

BULLETIN D'HISTOIRE NATURELLE DE FRANCE. 1833–5. *See also* SOCIÉTÉ DES SCIENCES NATURELLES DE FRANCE. *Paris.*

BULLETIN D'HISTOIRE NATURELLE DE LA SOCIÉTÉ LINÉENNE DE BORDEAUX.
1830, 1845, 1829 (1860). *See* BORDEAUX.

BULLETIN OF THE ILLINOIS AUDUBON SOCIETY. *See* AUDUBON BULLETIN.

BULLETIN OF THE INTERNATIONAL COMMITTEE FOR BIRD PRESERVATION.
1921–*date*. Bull. No. 2 is dated 1929. *8vo. pp. 4+ 51.* Chairman, T. Gilbert Pearson. *New York.*

BULLETIN DE LA LIGUE FRANÇAISE POUR LA PROTECTION DES OISEAUX. *Paris.*

A reference to this periodical occurs in *Le Gerfaut*, Fasc. 1, 1919.

BULLETIN OF THE LIVERPOOL MUSEUMS.
1898–1901. Vols. 1, 2, 3 (pt. 1 and 2). *col. pl.* *See also* LIVERPOOL.

BULLETIN OF THE MASSACHUSETTS AUDUBON SOCIETY FOR THE PROTECTION OF BIRDS. *8vo.* Issued monthly by the Massachusetts Audubon Society, Inc. Boston. Nine numbers annually. Vols. I–VI.
1917–*date*. Current. Vol. I. Feb. 1917–Jan. 1918. 9 nos. Vol. II. Feb. 1918–Jan. 1919. 9 nos. Vol. III. Feb. 1919–Jan. 1920. 9 nos. Vol. IV. Feb. 1920–Jan. 1921. 9 nos. Vol. V. Feb. 1921–Jan. 1922. 9 nos. Vol. VI. Feb. 1922→.

The following notes regarding this Bulletin have been kindly furnished by Mr. Winthrop Packard, the Secy.-Treasurer of the Society: 'There have been printed six volumes, the first having

been published in February 1917. The Bulletin has appeared monthly, with the exception of July, August, and September, and there are approximately 100 pages to each volume, each number containing 8–12 pages. The periodical is edited by Winthrop Packard and Francis H. Allen, Chairman of the Board of Directors. The contributors are mainly members of our Society, who send in interesting and novel items, and we also occasionally reprint matter from other magazines.'

BULLETIN OF THE MICHIGAN ORNITHOLOGICAL CLUB. Published in the interests of Ornithology in Michigan. Edited by L. Whitney Watkins, and several assistants. *8vo.* Quarterly. *tinted wrappers. illust.* Published in Grand Rapids, Mich.; later in Detroit, Mich.
1897–1905. (All issued.)

This club organ belongs to the serious class of ornithological journals and during its career played a useful role in mid-western American bird literature. On its editorial staff it had such well-known ornithologists as W. B. Barrows, Whitney Watkins, T. L. Hankinson, P. A. Taverner (now in the service of the Canadian Government), Norman Wood, and many other Michigan ornithologists, who maintained until its suspension the early scientific reputation of the periodical.

BULLETIN DU MUSÉE ROYAL D'HISTOIRE NATURELLE DE BELGIQUE.
1882–8. Vols. 1–5.

BULLETIN OF THE MUSEUM OF COMPARATIVE ZOOLOGY, AT HARVARD COLLEGE IN CAMBRIDGE.
1863–*date*. Vols. I–LXIX. *4to.*

One of the most important (if not *the* most important) periodicals devoted to the study of comparative zoology anywhere published.

BULLETIN DU NATURALISTE. *Paris.*
1879–80. (Supplement to Guide du Naturaliste.)

BULLETIN OF THE NEW HAVEN BIRD CLUB. Edited and published by the Club. No. 1 was dated May 1908. *8vo. pp. 32.* (All pub.) *pictured tinted cover.*

The first number contains a list of the birds of the New Haven region.

BULLETIN OF THE NEW ZEALAND NATIVE BIRD PROTECTION SOCIETY. Issued by the N.Z. Native Bird Protection Society, Wellington, N.Z.
(1918)–1924. Bulletins 1–6.

This organ of a society that is active and influential in the Dominion contains a number of interesting articles on bird life in New Zealand as well as appeals to the citizens to prevent as far as possible the extinction of several species that are in danger of extermination. In Bulletin No. 6 is a short paper on the dangers of acclimatization by Mr. J. G. Myers, a form of experiment that has been performed many times too often in New Zealand.

BULLETIN OF THE NORTHEASTERN BIRD-BANDING ASSOCIATION.
1922–*date*. Vols. I–V. *Boston, Mass.*

BULLETIN OF THE NUTTALL ORNITHOLOGICAL CLUB. A quarterly Journal of Ornithology. Editor, J. A. Allen.
1875–83. Vols. 1–8. *4to.* Thereafter continued as the Auk (q.v.).

BULLETIN OF THE OOLOGISTS' ASSOCIATION. *Omaha.*
1897. Vol. 1 (all pub.). (Wanting.)

Not seen by Compiler.

BULLETIN OF THE PEKING SOCIETY OF NATURAL HISTORY.
1926–9. Vols. I–III.

BULLETIN OF THE PHILIPPINE MUSEUM.
1903–4. Nos. 1–4.

BULLETIN OF THE RIDGWAY ORNITHOLOGICAL CLUB. *Chicago.*
1883–7. *8vo.*

Several important items appeared in this short-lived periodical.

BULLETIN OF THE ROYAL AUSTRALASIAN ORNITHOLOGICAL UNION.
1914. No. 4, April 16.

A passing reference to the above-mentioned number is all of this periodical that is known to the Compiler.

BULLETIN DES SCIENCES NATURELLES ET DE GÉOLOGIE. Pub. sous la direction de Baron de Ferussac.
1824–31. *27 vols. 8vo.* Deuxième Section du Bulletin Universel des Sciences et de l'Industrie, which contains the Natural History.

This is one of the most important of the early zoological journals. It contains many descriptions of new species. Complete copies are very rare.

BULLETIN SCIENTIFIQUE DU DÉPARTEMENT DU NORD ET DES PAYS VOISINS.
See BULLETIN BIOLOGIQUE DE LA FRANCE ET DE LA BELGIQUE.

BULLETIN SERIES OF THE SOUTH AFRICAN ORNITHOLOGISTS' UNION.
See POPULAR BULLETINS; *also* JOURNAL OF THE SOUTH AFRICAN ORNITH. UNION.

BULLETIN DE LA SOCIÉTÉ D'AVICULTURE.
Montpellier, Herault. (Ref. in journal list *Intern. Cat. of Scient. Publications.*)

BULLETIN DE LA SOCIÉTÉ DES SCIENCES NATURELLES DE MAROC.
1921–8. Pts. 1–8.

BULLETIN DE LA SOCIÉTÉ DES SCIENCES NATURELLES DE NEUCHÂTEL. (**Soc. neuchâteloise,** etc.) **1845–*date*.**
See also NEUCHÂTEL.

BULLETIN DE LA SOCIÉTÉ D'ÉTUDE DES SCIENCES NATURELLES DE NIMES.
1897–1925. 19 vols. *See also* NIMES.

BULLETIN DE LA SOCIÉTÉ D'HISTOIRE NATURELLE D'AUVERGNE. **1922–*date*.**
See also AUVERGNE.

BULLETIN DE LA SOCIÉTÉ D'HISTOIRE NATURELLE DE COLMAR.
1860–88. 1–29. **1883–5.** Supplement. *See* COLMAR.

BULLETIN DE LA SOCIÉTÉ FRIBOURGEOISE DES SCIENCES NATURELLES.
1879–*date*. *See* FRIBOURG.

BULLETIN DE LA SOCIÉTÉ IMPÉRIALE DES NATURALISTES DE MOSCOU.
1829–86. Années.

BULLETIN DE LA SOCIÉTÉ ORNITHOLOGIQUE SUISSE.
1865–70(1). Tomes 1 and 2 (all issued). *4to.*
Tome Premier. 1re Partie. 1865. *pp. 154. col. pl.*
2me Partie. 1866. *pp. 154. col. pl. illust. index.*
Tome Second. 1re Partie. *pp. 86. col. pl. index.*
2me Partie. 1870–[1871]. *pp. 167. col. pl. illust.*
(All issued.) *Geneva, Bâle, and Paris.*

These two volumes form the parts issued of this organ of the *Soc. Ornith. Suisse* (founded in 1863). Although the periodical had a short life it was, nevertheless, one of the pioneer magazines devoted to bird preservation and propagation. It was well illustrated and contained several papers of considerable scientific merit. In the list of contributors of papers one notices the names of Fatio, Saratz, Stauffer, Lunel, Stölker, Brehm, Roget, Beaumont, Girtanner, Humbert, Depierre, and A. Newton.

BULLETIN DE LA SOCIÉTÉ ZOOLOGIQUE DE FRANCE.
1876–83. *8 vols.*

BULLETINS OF AMERICAN PALEONTOLOGY. **1895**–*date.* *Ithaca.*

BULLETINS OF BROOKVILLE SOCIETY OF NATURAL HISTORY.
1885–6. Nos. 1 and 2. *Richmond, Ind.*

BULLETIN STATISTIQUE DES PÊCHES MARITIMES. **1910–28.** *Copenhagen.*

BULLETIN U.S. DEPT. OF AGRICULTURE. *See* UNITED STATES.

BULLETIN UNIVERSEL DES SCIENCES ET DE L'INDUSTRIE.
1824–31. Section 2. (Bulletin des Sciences Naturelles et de géologie.)

BULLETIN OF THE VERMONT BIRD CLUB. *Mrs.* NELLIE F. FLYNN, *editor.*
1906–14. Nos. 1–8. The first five numbers were edited by a Publication Committee.

In 1915 this *Bulletin* was merged with the *Joint Bulletin of the Vermont Botanical and Bird Club (q.v.).*
An excellent little periodical devoted mainly to local ornithology.

BULLETIN OF THE VERMONT BOTANICAL AND BIRD CLUB, JOINT. Comprising the Bulletin of the Vermont Botanical Club and Bulletin of the Vermont Bird Club, Burlington, Vt., Free Press Printing Co. Tinted covers. Current. Each number headed (on cover) 'Joint bulletin No. '.
1915–*date.*

The ornithological part of this combined magazine presents the character of the *Bulletin of the Vermont Bird Club* of which it is the successor.

BULLETIN NUMBER [ ] OF THE WILSON ORNITHOLOGICAL CHAPTER OF THE AGASSIZ ASSOCIATION. Edited by Lynds Jones. *8vo. Oberlin, Ohio.* *See* continuation of the WILSON ORNITHOLOGICAL CHAPTER.
1895–8. Ornithologists' and Oologists' Semi-Annual, continued as The Wilson Bulletin (q.v.).

BULLETIN ZOOLOGICAL SOCIETY OF EGYPT.
1927–8. No. 1 (all pub.). pp. 26 in English and 14 in Turkish. *8vo.* *Cairo.*

Articles mostly by native naturalists.

BULLETIN ZOOLOGIQUE. **1835.** *Paris.*

BULLETTINO MENSILE, etc. **Catania Accademia gioenia di scienze naturali.**
1888–*date.* *See* CATANIA.

BULLIARD, PIERRE [1742–93].
1808. Aviceptologie Française; ou, Traité général de toutes les ruses dont on peut se servir pour prendre les oiseaux. 5th ed. *pp. 24+312. pl.* *Paris.*

A treatise by an expert *Oiseleur* on the methods employed in trapping birds.

BULLING, C.
1922. Paintings of the birds of Fiji. *See* ORIGINAL DRAWINGS, BELCHER, W. J. and **others.**

BULLOCK, WILLIAM [*fl.* 1827].
1812. A companion to Mr. Bullock's London museum and Pantherion. 12th ed. *2 vols. 8vo. pl.* *London.*

Many of the 15,000 'natural objects' were stuffed animals.

1817. A concise and easy method of preserving subjects of natural history, intended for the use of sportsmen, travellers, etc. *16mo. pp. 36. front. 1 pl.* *London.*

In this tractate the preservation is treated on pp. 5–11, and 26–30, with two figures.

BUMPUS, H. C. *See* KINGSLEY, J. S., *ed.*, 1885.

BUND FÜR VOGELSCHUTZ-ABTEILUNG BERLIN.
1914. Vogelschutzkalender. *8vo. pp. 178. 3 pl. (2 col.). index.* *Berlin.*

A report of a local society for the care and protection of birds, with a number of useful articles by members. From the Cabanis-Reichenow collection.

BUNGARTZ, JEAN.
[**1888**]. Modell-Brieftauben-Album. Aquarellen; mit einem Vorwort von J. Horter, pts. 1–6. *folio. 10 col. pl. T. of c.* *Leipzig.*

A popular account of local carrier pigeons, with ten full-page, colored portraits of famous individuals.

BUONANNI, FILIPPO [1638–1725].
1681. Ricreatione dell' occhio e della mente nell' osseruation' della chiocciole, proposta a' curiosi della opere della natura. *4 pts. 8vo. pp. 16+384 +16. pl.* Extra engraved t.-p. *Rome.*

BURBIDGE, FREDERICK WILLIAM [1847–1920?].
1880. The gardens of the sun: or A naturalist's journal on the mountains and in the forests and swamps of Borneo and the Sulu archipelago. With illustrations. *8vo. pp. xviii+364. front. 25 figs. T. of c. append.* *London.*

Record of less known portions of Malaysia, accounts of birds appearing in the Appendix, pp. 352–64, entitled, 'A contribution to the Avifauna of the Sulu Islands', and 'On collections of Birds from Kina Balu Mt. in North-Western Borneo', both of which have been prepared by Bowdler Sharpe from specimens collected by the author, and which appeared as papers in the *Proc. Zool. Soc.*, 1879, Part II.

BURCKHARDT, RUDOLPH.
1921. Geschichte der Zoologie und ihrer wissenschaftichen Probleme. 2nd ed. *2 vols. 12mo.* *Berlin.*

These small pocket treatises, edited by H. Erhard, form a part of the *Sammlung Goeschen*, and present in compressed form the essence of the subject. They are regarded as a distant bird's-eye view of zoological literature.

BURDEN, W. DOUGLAS.

1927. Dragon Lizards of Komodo. *8vo. illust. New York.*

An interesting and informing account of a trip to the Malaysian and Far East Indian archipelego in search of the Varanus and other large species of 'dragons'. A German translation appeared in 1930 by Graf Alefeld.

1930. Drachenechsen. Eine Forscherfahrt zu den Maranen auf Komodo. *8vo. pp. 155. figs. in text. map. Berlin.*

A translation by Graf Alefeld of the English (1927) edition.

BURDON, *Mrs.* KATHARINE JANET (SUTHERLAND).

1920. A handbook of St. Kitts-Nevis. *12mo. pp. viii+247. front. (fold.). 13 pl. 6 maps (5 col., 4 fold.). T. of c. index. London.*

A handbook for tourists. The birds of the Island are described on pp. 107–11. The present copy is autographed by the author, a letter from whom is attached.

BURG, GUSTAV VON.

[? **1888.**] Vom Vogelzug in der Schweiz. *2 pts. in 1. 8vo. pp. 20+17.* no. t.-p.

The first part (20 pp.) deals with the causes of bird-migration in Switzerland; the second part (17 pages) describes the autumnal migration.

****, **FATIO,** V., and **STUDER,** THEOPHIL.

1889–1916. Catalogue des oiseaux de la Suisse. *See* FATIO, V. and STUDER, T.

1916. *See* STUDER, THEOPHIL.

BÜRGER, OTTO [1865–].

1900. Reisen eines Naturforschers im tropischen Südamerika. *8vo. pp. vi+395. pl. tab. Leipzig.*

BURGESS, THORNTON WALDO [1874–].

1919. The Burgess bird book for children, with illustrations in color by Louis Agassiz Fuertes. *8vo. pp. xvi+353. front. (col.). 31 pl. (col., 56 figs.). T. of c. index. Boston.*

The primary purpose of this book is to interest the child in his feathered friends.

BURMEISTER, CARL HERMANN CONRAD [1807–92].

1840. *See* NITZSCH, CHRISTIAN LUDWIG.

1853. Reise nach Brasilien, etc. *8vo. and ob. folio. pp. 7+608. 1 map. 11 pl. atlas. Berlin.*

Among the chief of many natural history works founded on the author's scientific explorations in Brazil. He later visited and described similar experiences in Argentina, Chile, Uraguay, and other South American republics.

1856. Systematische Uebersicht der Thiere Brasiliens welche während einer Reise durch die Provinzen von Rio de Janeiro und Minas Geraës gesammelt oder beobachtet wurden. *3 vols. 8vo. Berlin.*

The second and third volumes are devoted to the birds of middle South America.

1856. Anatomie der *Coracina scutata. pp. 22. 1 pl.* Author's separate. *Halle.*

1856. Erläuterungen zur Fauna Brasiliens, enthaltend Abbildungen und ausführliche Beschreibungen neuer oder ungenügend bekannter Thier-Arten. *folio. pp. 8+115. 32 pl. Berlin.*

BURNELL, ELIZABETH F. and **WYMAN,** L. E.

1925. Field book of birds of the southwestern United States. *See* WYMAN, L. E.

BURNET, M.

1895. Zoology. *New York.*

BURNETT, *Mrs.* FRANCES ELIZA (*born* HODGSON) [1849–1924].

1913. My robin. *8vo. pp. 60. London.*

BURNS, FRANKLIN LORENZO [1869–].

1915. A bibliography of scarce or out of print North American amateur and trade periodicals devoted more or less to ornithology. *8vo. pp. 32.*

A most useful list of the rarer ornithological periodicals published in America, reprinted from the *Oologist.*

1919. The ornithology of Chester County, Pensylvania. *8vo. pp. 122. front. 20 pl. (5 portr.). T. of c. bibliogr. Boston.*

BURRELL, HARRY.

1927. The Platypus. Its discovery, zoological position, form and characteristics, habits, life history, &c. *pp. 227. 35 pl. index. Sydney.*

A most interesting account of the Duckbilled Platypus by the chief authority on the subject.

BURROUGHS, JOHN [1837–1921].

[**1885**]. Wake-robin. *8vo. pp. [viii]+284. T. of c. Boston and New York.*

This book is mainly devoted to birds, especially as to their distribution, nesting, songs, instincts, and the relations of the sexes.

1894. Riverby. *8vo. pp. [3]+319. T. of c. Boston and New York.*

Many references to birds will be found, principally to their eggs mode of courtship, and nesting habits, etc.

1895. *See* WHITE, *Rev.* GILBERT.

1904–9. Writings. Riverby ed. *15 vols. 8vo. portr. many pl. T. of c. indexes. Boston.*

Part of this well-known collection of essays on natural history was written in 1871; the remainder at various dates since then. The volumes include many chapters on and references to animals and their ways. All the essays have been reprinted.

1906. Bird and bough. *12mo. pp. ix+(1)+70. T. of c. Boston.*

In these verses the author has endeavored to bring home the bough with the bird he heard singing upon it, or some suggestion of its place in the fields and woods and in the season.

1907. Locusts and wild honey. *8vo. pp. [3]+235. front. T. of c. Boston and New York.*

Many references to birds and their nesting, with an account of the Kingfisher in Canada.

1910. In the Catskills. *8vo. pp. xii+251. front. 23 pl. T. of c. Boston and New York.*

The principal bird item consists in a chapter on how, when, and where to find birds' nests.

1912. Fresh fields. *16mo. pp. (8)+309. front. 7 pl. (2 col.). T. of c. index. Boston.*

An account of the author's visit to England, three of the ten chapters being entitled, A hunt for the Nightingale; English and American song-birds; and Impressions of some English birds. The present copy is an autographed one, and forms vol. VI of the Riverby edition.

[**1917**]. Birds of America; [edited by] T. G. Pearson. Consulting editor, John Burroughs. *See* PEARSON, T. G.

[**1922**]. Birds, with pictures from John James Audobon's [!] 'Birds of America', with introduction, by Robert J. Cole. *18mo. pp. 92. London.*

A bibelot illustrated by about 30 cuts of birds in the text, forming a series of talks in Burroughs' charming style.

BURTON-UPON-TRENT NATURAL HISTORY AND ARCHAEOLOGICAL SOCIETY.

1902?–13. Transactions.

BUSHNAN, JOHN STEVENSON [1808?–84].

1840. Nature of Fishes. *31 col. pl.*

BUTLER, Amos William [1860–].

1891. The Birds of Indiana, with illustrations of many of the species. Prepared for the Indiana Horticultural Society, and Originally Published in its Transactions for 1890. *8vo. pp. 135. 97 figs. in text. index.*

This reissue of the paper above referred to is in the form of a separate brochure, a limited number of which were published to form the present author's edition (for presentation, etc.) of which the volume in hand is one. It is an annotated catalogue of species systematically arranged and with a useful index. The author's *Birds of Indiana*, 1898 (q.v.), may be regarded as an enlarged and improved edition of this list.

1898. The birds of Indiana, a descriptive catalogue of the birds that have been observed within the state, with an account of their habits. *8vo. pp. 515–1187. 5 pl. 112 figs. index. Indianapolis.*

A manual descriptive of 404 species said to have been taken in the State, with migration data, distribution, nidification, and general notes on habits, etc. The work was issued both in separate form and in the original inclusive report of the State Geologist.

BUTLER, Arthur Gardiner [1844–1925].

1886. British birds' eggs, etc. *8vo. pp. viii+219. 38 pl. (col.).* *London.*

1890. Foreign Birds for Cage and Aviary. *2 vols. col. front. illust. text.*

1894. Foreign finches in captivity; illust. 60 pl. by F. W. Frohawk, col. by hand. *2 vols. folio.* Paged continuously. Author's interleaved copy with MS. notes. Portrait inserted. 1st ed. Vol. I, *pp. viii+164.* Vol. II, *pp. 165–330.* *London.*

This magnificent work depicts and describes over 80 non-British finches and other cage-birds, discussing their songs, food, and care in captivity. He also gives their natural history.

1896–8. British birds with their nests and eggs. *6 vols. 4to. hand-col. pl.*

A systematic but popular account of the birds of the British Isles, their distribution and nesting habits, etc., illustrated with 318 fine drawings of the birds and 24 colored plates of eggs by Frohawk. The work was originally issued in numbers with the assistance of several colleagues. Vols. 1 and 2 were republished by Butler in 1907–8, with additional colored plates, as *Birds of Great Britain and Ireland.*

1899. Foreign finches in captivity. 2nd ed. Illustrated by F. W. Frohawk. *8vo. pp. viii+317. front. (col.). 59 pl. (col.). T. of c.* *Hull.*

The present edition with printed plates is a reissue of the author's previous work of the same title with hand-colored plates, 4to, 1895–6. The work embraces an account of 80 foreign cage-birds not all of which, however, can be truly considered as finches. Following descriptions of plumage, distribution, etc., each species is discussed with regard to its song, activities, food, and general treatment in captivity.

1900. Foreign bird keeping. *4to. figs. in text. T. of c. append.* Part I, *pp. vii+7–66+2.* Part II, *pp. vii+7–98+2.* *London.*

The forerunner of the author's *Foreign Birds for Cage and Aviary* and written in much the same style.

[**1905**?]. Foreign birds for cage and aviary. *2 vols. 4to. T. of c. index.* Part I. The smaller foreign birds. *pp. 295+2. col. front. Index of scientific names. Numerous figs in text.* Part II. The larger foreign birds. *pp. 304+iii. col. front. Index to scientific names. Numerous figs. in text.* *London.*

A most useful guide for the aviarist and student of popular ornithology.

1907. How to sex cage birds. (British and foreign.) *8vo. pp. 176. 4 col. pl. Over 50 cuts in the text. T. of c. index.* *London.*

A very useful work on the subject. In this connexion the reader is referred to Miss Knobel's article in the *Avicultural Magazine* for 1926 on the sexing of Parrots.

[**1907–8**]. Birds of Great Britain and Ireland; order Passeres; illust. by H[enrik] Grönvold and F. W. Frohawk. *2 vols. 4to.* Vol. I (1907), *pp. (6)+210. front. 4 pl. (col. eggs). 56 pl. (col. birds).* Vol. II (1908), *pp. (6)+216. front. 4 pl. (col. eggs). 51 pl. (col. birds). append. 2 indexes.* *London.*

A reprint with additions and emendations of the first two volumes of the 1896–9 work, *British Birds with their Nests and Eggs*, with the substitution of colored plates; also discussions of 26 species not in the earlier volumes, 18 of which will be found in the Appendix, pp. 202–11. The plates of eggs are the same as those of the earlier work except for altered backgrounds, the plates of birds, however, are new.

BUTLER, Edward Arthur [1845–1925].

1879. A catalogue of the birds of Sind, Cutch Ka'thia'wa'r, North Gugjara't, and Mount Aboo, etc. *8vo. pp. 83.* *Bombay.*

A briefly annotated catalogue of nearly 1,000 species of Indian birds. Most of the text was contributed to the *Bombay Gazetteer* and is here republished with proper pagination and amendment.

1880. A catalogue of the birds of the southern portion of the Bombay presidency. Contributed to the Bombay Gazetteer. *8vo. pp. 113. map.*

A specially entitled separate with inserted addenda, listing and describing 427 species of birds observed within the region described and 97 extralimital forms. The copy in hand is from the P. L. Sclater collection.

BUTTERFIELD, W. Ruskin.

1908. A list of books relating to British birds, published before the year 1815. (From the library of W. H. Mullens.) *8vo. pp. 34. 7 photo. pl.* *Hastings.*

This brochure, reprinted with additions and corrections from Occasional Publication, No. 3, Hastings and St. Leonards Natural History Society, includes most of the early works in which British birds are mentioned or described, with annotations. Inserted is a letter from Major Mullens relating to the subject.

BUTTERWORTH, Hezekiah [1839–1905].

1901. In the days of Audubon; a tale of the 'protector of birds', with an appendix on the formation of Audubon societies. Illust. by B. West Clinedinst and others. *8vo. pp. x+236. front. 7 pl. (1 portr.). 4 figs. (portr.). T. of c. append.* *New York.*

While the story of Audubon's life in this volume is historical fiction, the narrative and illustrated anecdotes are substantially true. There being no American story of Audubon for young people's libraries of historical fiction, the present story of the 'Protector of Birds' would seem to be a needed influence in the growth of the Kindergarten spirit toward birds and dumb animals. The appendix tells how to form an Audubon Society.

BÜTTIKOFER, Johann [1850–1927].

[**1884–6**]. Zoological researches in Liberia; a list of birds, collected by F. X. Stampfli near Monrovia, on the Messurado River, and on the Junk River with its tributaries. *8vo. pp. 243–68.* [*Leyden.*]

An annotated list of 126 species (two new). Twenty-eight of these were new to the list made by Büttikofer and Sala in 1880–2, thus bringing the total list to 192 species, all of which are represented in the Leyden Museum by at least one specimen. (From *Notes from the Leyden Museum*, vol. viii.)

1885. Zoological researches in Liberia; a list of birds, collected by J. Büttikofer and C. F. Sala. *8vo. pp. (2)+129–256. 1 pl. (col.). 1 map. index.* *Leyden.*

A well annotated list of the 164 species obtained by these two collectors during the years 1880–2, in this little known country, an introduction to which is given in pp. 129–50, together with a map showing the author's travels. MS. letter from the author inserted in this copy which was originally in the Tristram Library with bookplate. (From *Notes from the Leyden Museum*, vol. vii.)

1886–7. Zoological researches in Liberia; a list of birds collected by the author and F. X. Stampfli. *8vo. pp. 59–106. 1 map.* [*Leyden.*]

An annotated list of 151 species, 25 being new to lists obtained in 1880–2, and 1884–6, thus bringing the total list up to 217 of the 231 species at present known from Liberia. (From *Notes from the Leyden Museum*, vol. x.)

1886. Contribution to the ornithology of Sumatra. On a collection of birds, made by C. Klaesi, in the highlands of Padang (W. Sumatra) during the winter 1884–85. From the Notes from the Leyden Museum. *8vo. pp. (2)+96. Leyden.*

From this collection of Sumatran birds 189 species are more or less fully described with synonymy, etc. The first important account of the birds of Sumatra is by Sir Stamford Raffles in 1822, who collected 168 species at Bencoolen (S.W. Sumatra) and its vicinity.

1888. Zoological researches in Liberia. Birds. *map.*

This is the second part of the third monograph (1886).

1890–1907. *See* WEBER, MAX C. W.

1894. Ornithologische Sammlungen aus Celebes, Saleyer und Flores. *4to. pp. 38. pl. Leiden.*

Author's reprint from Weber, Max., *Zoologische Ergebnisse einer Reise in Niederlandisch Ost-Indien*, vol. 3, 1894.

[1895–6]. [Ornithological and other notes.] *16 pts. in 1 vol. 8vo. pp. 152.* no. t.-p.

These 16 papers—bound into one volume—are from the library of Canon Tristram (with his bookplate), being presentation copies to him from the author.

BUTURLĬN, SERGIUS ALEKSANDROVĬCH.

[1905]. Why do birds migrate along the same route? In Russian. *8vo. pp. 19.*

A serious contribution to this migration mystery.

ca. **1905.** Die geographische Verbreitung der Fasanen. *8vo. pp. 71. map. many text-figs.* In Russian; t.-p. in German. *Kolyma.*

BUXTON, EDWARD NORTH [1840–1917].

1885. Epping Forest. 2nd ed. *16mo. pp. xii+139. 25 figs. 6 maps (col., 4 fold.). T. of c. London.*

A guide-book. Lists are given of the forest flora and fauna. The first edition was published in 1884.

BUXTON, PATRICK ALFRED [1892–].

1923. Animal life in deserts, a study of the fauna in relation to the environment. *pp. xv+176. 43 figs. T. of c. index. London.*

A very instructive and interesting account of deserts, their climate, soils, rains, water-courses, and especially their influence on the animals and plants which find a living there. The author argues against the old belief that pale sandy tints of desert mammals and birds are protective, suggesting that some other 'explanation will eventually be found in studying the effects of physical conditions upon animal-life'.

BUZZARD, THE.

1926–7. A Hard Boiled Magazine. Published by the Cuckoo Ornithological Club. *8vo. illust.* Annual.

A compeer of the *Auklet* and issued for the same purpose, viz. to afford some harmless amusement for the members of the Cooper Ornithological Club (California) at their yearly dinner. All the contributions are, of course, anonymous. Vol. I, 1926; vol. II, 1927.

BYALUINĬTZKIĬ-BĪRULYA, ALEKSANDR ANDREEVĬCH. *See* BĪRULA, ALEXANDER.

BYERLEY, ISAAC.

1854. The fauna of Liverpool. *8vo. pp. 124. 1 pl. (col.). addend. 2 indexes. Liverpool.*

BYRNE, L. W. *See* CHALLENGER SOCIETY, 1909.

BYRON, JOHN [1723–86].

1767. A voyage round the world, in his Majesty's ship the Dolphin commanded by the Honourable Commodore Byron. In which is contained, a faithful account of the several places, people, plants, animals, etc. seen on the voyage, and, among other particulars, a minute and exact description of the straights of Magellan, and of the gigantic people called Patagonians. By an officer on board the said ship. *8vo. pp. 4+186. 3 pl. London.*

One of the classic voyages in which several new species are described. There are several editions and translations of this report entered in this Catalogue. The above is the second edition.

1769. Reise um die Welt, in den Jahren 1764 und 1765, nebst einer genauen Beschreibung der Magellanischen Strasse, der Patagonischen Reisen, und der ganz neu-entdeckten sieben Inseln in der Süd-See. *pp. 326. 1 pl. Frankf. and Leipzig.*

German edition of the original English voyage of H.M.S. 'Dolphin'.

BY THE WAYSIDE. (Wisconsin and Illinois Audubon Societies.) *Madison, Wis.*

1898–1914. Vols. I–XV (all pub.).

In spite of its irregularities this popular magazine has a most useful life and from an examination of the volumes accessible to the Compiler seems to have enjoyed the support of many painstaking ornithologists, among them Roland R. Kremers and F. S. Brandenburg of Madison; Thos. E. Moyle of Appleton, Wis.

C., C.

1898. Riviera nature notes. A popular account of the more striking plants and animals of the Riviera and the Maritime Alps. *12mo. pp. xx+373. front. 4 pl. 25 figs. T. of c. Manchester.*

The bird matter is very fragmentary and is contained in chapter XLI.

1903. Agrestia Ligustica. Riviera nature notes. *8vo. pp. xv+(1)+402. front. 31 pl. 93 figs. T. of c. 3 append. index. London.*

An enlarged and revised edition of the first issue of 1898. The bird notes are in chapter XLIII, pp. 305–11.

CABANIS, JEAN LOUIS [1816–1906].

1845–6. Ornithologie [of Peru] . . . mit Anmerkungen von J. Cabanis. *See* TSCHUDI, J. J. VON.

1854. *See* LICHTENSTEIN, M. H. C.

1869–79. *See* DECKEN, C. C. VON DER.

(THE) CABINET CYCLOPAEDIA, conducted by D. Lardner. *See* SWAINSON, W.

CABINET OF NATURAL HISTORY AND AMERICAN RURAL SPORTS, WITH ILLUSTRATIONS. 1830–4. *Philadelphia.*

CABOT, J. ELLIOT. *See* AGASSIZ, LOUIS, 1850.

CABRERA, ANGEL.

[1922]. Libros de la Naturaleza; El mundo alado. *8vo. pp. 93+(1). front. vignette. 6 pl. 27 figs. index.* [*Madrid.*]

Popular Spanish booklet on the winged world, inculcating principles of protection of insect-eating birds, with illustrations of strange nests and other subjects.

1922. Manual de Mastozoologia. *pp. 440, 176 figs. Madrid.*

CAEN. *See* MUSÉE D'HISTOIRE NATURELLE DE CAEN.

CAGE BIRD CLUB. Transactions.
1893–6. Vols. 1–3. *8vo. map.* Probably no more issued. Edited by W. H. Betts and Thos. Marshall. *London.*

This is a useful little magazine devoted to birds in captivity. A number of short articles by members and friends are given.
Vol. I. 1893–4. *pp. 120.* Divided (but not numbered nor dated) into 4 pts.; paged separately. Vol. II. 1894–5. *pp. 230. col. map. consecutive pagination. index.* Vol. III. 1895–6. *pp. 134. index.* (All issued?)

CAGE BIRDS ANNUAL.
1903–*date.* A Year Book of the Bird World, etc. *4to. T. of c.*

This periodical gives a well-edited review of such as may be obtained by purchase in the British market. In addition to its trade interests there are many articles of decided scientific value, and several dealing with wild birds.

CAGE BIRDS AND BIRD WORLD.
1902–*date.* A Weekly Journal for Everybody Interested in Cage and Wild Birds. *sm. folio. 2 vols. (26 nos. each) per annum. illust. by cuts and col. pl.* *London.*

This popular and trade magazine contains much that is of scientific value as well as numerous entertaining and instructive papers, notes, queries, and replies on cage birds—both domestic and foreign. It reflects, in fact, that widespread interest in bird life and bird culture that especially characterizes the British people. Certain departments are in charge of well-known writers. E. G. Wesley Page has for many years written on and replied to questions regarding Foreign Cage and Aviary Birds.
The periodical certainly deserves a place in any complete library on ornithology.

CAGE BIRD WORLD. 1919–*date.*
Baltimore, Md.

CAHN, Alvin Robert [1892–].
1926. The spiny dogfish; a laboratory guide. *8vo. pp. 14+94.* *New York.*

1927. (An) ecological study of southern Wisconsin fishes. *4to. pp. 151. pl. diagr. maps.* (Illinois biological monographs, vol. 11, no. 1.) *Urbana.*
Author's separate.

CAIRO. Ghizeh zoological gardens.
1900–12. Annual Report. *Cairo.*
Subsequent reports were issued as part of those on the Zoological service, for which *see* EGYPT.

******. Musée des antiquités égyptiennes.**
1905. Catalogue général des antiquités égyptiennes du Musée, vol. 25. La faune momifiée de l'antique Égypte par Claude Gaillard et Georges Daressy. *folio. pp. 2+159. illust. pl.* (Service des antiquités de l'Égypte.) *Le Caire.*

******. Egyptian Government Zoological Gardens.** *See* GIZEH, EGYPT. ZOOLOGICAL GARDENS.

CAIUS, John [1510–73].
1570. De Canibus Britannicis, liber unus. De rariorum Animalium & Stirpium historia, liber unus, etc. *8vo.* [O.] *London.*
The extremely rare *editio princeps* of a famous treatise on English dogs, and other natural history subjects.

1729. De Canibus Britannicis, liber unus; De rariorum Animalium & Stirpium historia, liber unus, etc. *8vo. pp. 16+249.* *London.*
A late edition of a celebrated work, the first published in 1570.

1880. Of Englishe Dogges, etc. Tr. by Abraham Fleming from the Latin edition of 1576. Reprinted. [O.] *London.*

CALCUTTA JOURNAL OF NATURAL HISTORY, 1840–7.
Complete from the commencement in 1841 to conclusion in 1848. Being vols. 1–7, and the rare two parts issued for vol. 8, with general index, bound in 7 vols.
A rare and valuable set of great interest to zoologists.

CALCUTTA. Indian Museum.
1899. A descriptive Catalogue of Indian Deep-sea Fishes . . . collected by the 'Investigator'. *4to. pp. 3+211+8. col. map.* *Calcutta.*
A valuable account by A. Alcock.

CALDERWOOD, William Leadbetter.
1908. The life of the salmon with reference more especially to the fish in Scotland. 2nd imp. *23½ cm. pp. xxiv+160. front. 7 pl.* *London.*

CALIFF, Gladstone.
1924. Permanent bird houses. *8vo. pp. 64. 36 pl. 6 figs. T. of c. index.* *Milwaukee, Wis.*

CALIFORNIA ACADEMY OF SCIENCES.
Formerly California Academy of Natural Sciences. *San Francisco.*
1884–7. Bulletin.
1868–1905. Memoirs.
1890–*date.* Occasional Papers.
1854–76. Proceedings. Series 1.
1888–96. Proceedings. Series 2.
1907–*date.* Proceedings. Series 3.
1897–1906. Proceedings (Zoology).
Owing to various accidents (the great fire, etc.) complete sets of these important periodicals are rarely on the market. Some early numbers seem to have been privately printed.

CALIFORNIA FISH AND GAME. 1914–*date.*
San Francisco, Sacramento.

CALIFORNIA TRAVELLER AND NATURALIST. *Napa, San José.*
1892–3. Also appeared as Traveller and Naturalist.

CALIFORNIA UNIVERSITY.
1908–*date.* Memoirs.
1902–*date.* Publications in Zoology.
1916–*date.* Bulletin of Scripps Institution for Biological Research.

CALUALI, Louis.
1829. Verzeichniss der Ornithologischen Sammlung. *4to.* *Darmstadt.*

CALVERT, Robert [1816–91].
1884. Notes on the geology and natural history of the county of Durham. *8vo. pp.[4]+184. diag. map.* *Bishop Auckland.*

CALWER, C. G. [–1874].
1854. Recensio avium. *Stuttgart.*

(THE) CAMBRIDGE NATURAL HISTORY, ed. by S. F. Harmer and A. E. Shipley.
1909. Vol. IX. Birds. By A. H. Evans. *pp. xvi+635. front. (map col. fold.). 144 figs. T. of c. index.* *London.*
The present volume, a reprint of the first edition of 1899, forms vol. no. IX of *The Cambridge Natural History*, published in ten

volumes, 1895–1909. A general review of the birds of the world with a short description of the majority of the forms in many of the families, and of the most typical or important of the innumerable species included in the large Passerine order. Prefixed to each group is a brief summary of the structure and habits; a few further particulars of the same nature being subsequently added where necessary, with a statement of the main fossil forms as yet recorded. Another reprint was issued in 1922.

1922. Volume nine. Birds by A. H. Evans. *8vo. pp. xvi+635. front. (map col. fold.). 144 figs. T. of c. index.* *London.*

A reprint of the 1909 issue, which itself was a reprint of the first edition of 1899, without alterations.

CAMBRIDGE NATURAL SCIENCE MANUALS.

1898. Outlines of vertebrate palaeontology for students of zoology. *See* WOODWARD, ARTHUR SMITH.

CAMBRIDGE PHILOSOPHICAL SOCIETY. *Cambridge, Eng.*

1843–*date.* Proceedings.

1820–*date.* Transactions.

CAMBRIDGE UNIVERSITY.

1909. Darwin centenary; the portraits, prints and writings of Charles Robert Darwin. By J. C. Simpson. *8vo. pp. 6+47.* *Cambridge.*

CAMELOT SERIES.

1887. Ed. Ernest Rhys. The natural history of Selborne. *See* WHITE, *Rev.* GILBERT.

CAMERANO, LORENZO.

1905–9. Materiali per la storia della Zoologia in Italia. *8vo.* (Bollettino dei Musei di Zoologia . . . di Torino. Vols. XX–XXIV.) *Torino.*

Author's separate, furnishing a brief but systematic review of zoological literature from the earliest to the latest times.

CAMPBELL, ARCHIBALD JAMES.

1901. Nests and eggs of Australian birds, including the geographical distribution of the species and popular observations thereon. With map, 28 coloured plates and 131 photographic illustrations. *2 vols. 8vo.* Vol. I, *pp. xl+524. front. (portr.). 69 pl. (1 col.). 1 map. index.* Vol. II, *pp. (2)+525–1102. front. (portr.). 47 pl. 27 pl. (col. eggs). append. index.* *Sheffield.*

A most interesting account of the nidification of 765 Australian birds, with copious notes and beautiful photos of nests and nesting sites as well as 27 colored plates of eggs. The portraits are of John Gould and the Author, and there is also a colored plate in vol. I of the Rose-breasted Robins with nest and eggs.

CAMPBELL, JAMES.

1773. A treatise of modern faulconry: To which is prefixed, from authors not generally known, an introduction, shewing the practice of faulconry in certain remote times and countries. *8vo. pp. iv+264. 1 pl. T. of c. glossary.* *Edinburgh.*

The introduction, pp. 29–118, gives an account of falconry in remote times and countries, being followed by the treatise, pp. 121–257, of the different hawks used, the method of training and flying them, etc., with a glossary of the technical terms of falconry, pp. 259–64. The plate with five figures forms a frontispiece to the treatise in this copy, and not to the volume in general.

CAMPER, PETER [1722–89].

1782. Natuurkundige Verhandelingen over den Orang Outang; en eenige andere Aapsoorten over den Rhinoceros met den Dubbelen Horen; en over het Rendier. *4to. pp. 4+235. pl.* *Amsterdam.*

1791. Dissertation sur les Variétés naturelles qui caractérisent la physionomie des Hommes, etc. Tr. from the Dutch by H. J. Jansen. *4to. illust. 11 pl.* [O.] *Paris.*

1792. Discours sur le moyen de représenter . . . les diverses Passions, etc. Tr. from the Dutch. *4to.* *Utrecht.*

CANADA.

1906. Report on the Dominion Government expedition to Hudson Bay and the Arctic Islands on . . . the D. G. S. Neptune, 1903–4. *8vo. pp. 17+355. 52 pl. 1 col. map. illust. text.* *Ottawa.*

This report was made by A. P. Low (1861–), a prominent Canadian naturalist. In Appendix II there is a 'List of Birds and Eggs by A. Halkett assisted by Prof. Macoun and Rev. Mr. Eifrig'.

CANADA. Conservation Commission of.

1916. Conservation of fish, birds and game; proceedings at a meeting of the Committee on fisheries, game and fur-bearing animals, Nov. 1915. *4to. pp. (10)+218. front. 15 pl. T. of c. 6 append. index.* *Toronto.*

The report on birds, pp. 141–60, with one illustration.

CANADA. Dominion parks branch.

1914. Handbook of the Rocky Mountains Park Museum. *See* SMITH, HARLAN I.

[**1920**]. Ministers of agriculture give views on bird protection: Why Saskatchewan believes in bird protection by C. M. Hamilton—Our obligation to the birds because of their usefulness to agriculture—A tribute to the value of birds by H. W. Doherty—The value of birds [for] Valentine Winkler. *8vo. pp. 13.* *Ottawa.*

1926. Birds a national asset. Views of provincial ministers of agriculture. *8vo. pp. 16.* *Ottawa.*

In this pamphlet the views of six Ministers of Agriculture are given as follows: viz. John H. Myers, Prince Edward Island; M. Cumming, Nova Scotia; Geo. Maheux, Quebec; V. W. Jackson, Manitoba; Chas. M. Hamilton, Saskatchewan; and F. M. Rendell, Alberta. A similar pamphlet appeared in 1920.

CANADA. Interior, Department of.

1920. Migratory birds convention act (with amendments). *8vo. pp. 16.* *Ottawa.*

An Act respecting a certain Convention for the Protection of Migratory Birds into Canada and the United States. A very important arrangement for the salvation of game birds.

1922. Edition of September 1, 1922. Federal regulations for the protection of migratory birds. *8vo. pp. 16.* [*Ottawa.*]

This Convention Act was further amended in 1923 and 1924.

1923. Edition of September 1, 1923. Federal regulations for the protection of migratory birds. *8vo.* *Ottawa.*

[**1924**]. Edition of September 1, 1924. The migratory birds convention act and federal regulations for the protection of migratory birds. *8vo. pp. 21.* *Ottawa.*

An enlarged edition of the issues of 1922 and 1923 brought up to date.

1925. Edition of September 1, 1925. The migratory birds convention act and federal regulations for the protection of migratory birds; the consolidated statute. *8vo. pp. 32.* *Ottawa.*

An amended edition of the issue of 1924 brought up to date.

[**CANADA. Interior, Department of** (*contd.*)]

1927. Edition of September 1, 1927. The migratory birds convention act and federal regulations for the protection of migratory birds. The consolidated statute. *8vo. pp. 35.* *Ottawa.*

An amended edition of the issue of 1925.

[**1927**]. Three lessons on bird protection. I.—The value of birds to man. II.—How birds are protected. III.—How children can assist. Authorized by all the Provinces for use in the schools of Canada. Compiled from articles by R. W. Tufts, H. F. Lewis, J. A. Munro. *8vo. pp. 16.* *Ottawa.*

CANADA. McGill University Publications. In Series. Nos. 1–19. [Series 7 (Library), No. 19, was published in 1930.]

CANADA. National parks branch.

1928. Jasper National Park, by M. B. Williams. *8vo. pp. 4+176. illust. pl. maps.* *Ottawa.*

n.d. Common birds of eastern Canada. *4to. 25 pl.* *Ottawa.*

CANADIAN ALPINE JOURNAL.

1912. Published by the Alpine Club of Canada. *8vo. pp. 97. 17 pl. 1 map. T. of c.* *Winnipeg.*

Birds by J. H. Riley, pp. 47–75.

CANADIAN ARCTIC EXPEDITION, Reports. *See* CANADA, 1906.

CANADIAN FIELD NATURALIST. (Ottawa Field Naturalists' Club.) **1887**–*date.* *Ottawa.*

CANADIAN FISH AND GAME. **1907–21.** *Toronto.*

CANADIAN HANDBOOK AND TOURIST'S GUIDE, etc.

1867. *8vo.* *Montreal.*

CANADIAN INSTITUTE. *See* ROYAL CANADIAN INSTITUTE.

CANADIAN NATURALIST AND QUARTERLY JOURNAL OF SCIENCE, with **Proceedings of the Natural History Society of Montreal.** *Montreal.*

1856–63.

1864–83. New Series.

CANADIAN NATURAL SCIENCE NEWS.

1897? *Baden, Ont.*

CANADIAN ORNITHOLOGIST, THE. A monthly Record of Information relating to Canadian Ornithology. *8vo.* Pictured and tinted cover. Edited by Dr. A. M. Ross, Toronto. Published by Willing and Williamson, Toronto. Vol. I, No. 1, 1873. *T. of c. pp. 20. illust. with 7 cuts in the text.* *Toronto.*

Of this rare little magazine there has been published, so far as the Compiler can discover, only this number. The editor of the magazine seems to have written all the articles including one on the food of Canadian Birds and another on their classification.

CANADIAN RECORD OF SCIENCE, including the **Proceedings of the Natural History Society of Montreal** and replacing the *Canadian Naturalist.* **1884–1916.** *See also* CANADIAN NATURALIST. *Montreal.*

CANADIAN ROYAL SOCIETY. *See* ROYAL SOCIETY OF CANADA.

CANADIAN SPORTSMAN AND NATURALIST. *Montreal.*

1881–3. *8vo. See also* COUPER, WILLIAM.

Of this monthly journal three vols. were published.

CANARY AND CAGE-BIRD LIFE. Being the Canary, British, and Foreign Bird Section of *The Feathered World.* (Founded 1889.) Edited by Mrs. Comyns-Lewer. Weekly. *4to. illust.* Vols. 1–18, 1905–14 (all issued). *London.*

Merged with *The Feathered World* (q.v.).

CANARY BIRD; a moral fiction. 1799. *See* ANONYMOUS.

CANESTRINI, G. *See* CORNALIA, E., 1870–4, *ed.*

CANIVET DE CARENTAU, EMMANUEL. *See* MASSÉNA, A., 1846.

CANTOR, THEODORE EDWARD [1809–79?].

1842. Zoology of Chusan. *4to. pp. 32. 13 pl. (col.).* *Calcutta.*

CAPE HORN.

1887–91. Mission Scientifique du Cap Horn. (Ministères de la Marine et de l'Instruction Publique.) *4to.* *Paris.*

An important series that deals to some extent with the general zoology of the southern part of South America.

CAPEK, WENZEL.

1896. Beitraege zur Fortpflanzung des Kuckucks. *8vo.*

CAPELLINI, GIOVANNI [1833–1905?].

1862. Studi stratigrafici e paleontologici sull'infralias nelle montagne del Golfo della Spezia. *folio. pp. 75. pl. tab.* *Bologna.*

CAPELLO, FELIX DE BRITO and **BARBOZA DU BOCAGE,** J. V.

1866. Apontamentos para a Ichthyologia de Portugal, etc. *4to. pp. 40. 3 col. pl.* Portuguese and French in parallel columns. (Wanting.) *Lisbõa.*

CAPEN, ELWIN A.

1886. Oölogy of New England; a description of the eggs, nests and breeding habits of the birds known to breed in New England. *folio. pp. 116. 25 pl. (col.). index.* *Boston.*

A popular work on the eggs, nests, and breeding habits of New England birds, with colored illustrations of their eggs.

CAPITA ZOOLOGICA. **1921**–*date.* *The Hague.*

CAPPONI, PIETRO.

1899. Avifauna della provincia di Ascoli Piceno, etc. Ascoli Piceno. *1 vol. 4to. pp. 162+3. index.*

Author's presentation copy. Both the vernacular and the zoological names of the birds of the Italian Province Ascoli Piceno are given.

CARA, GAETANO.

1842. Elencho degli Uccelli che trovansi nell' Isola di Sardegna od Ornitologia sarda, etc. *8vo. pp. xii+207. index.* *Torino.*

A systematic but brief description of 265 species (arranged in genera) of birds inhabiting or visiting the island of Sardinia.

CARACAS. Museo Nacionales.

1921–*date.* Boletin.

1912–*date.* Gaceta.

CARACAS. Universidad Central.
1900–*date*. Anales.

1887–91. Revista Científica.

CARCANO, Francesco [1500–80].
1622. I tre libri de gli uccelli da rapina; con un trattato de' cani da caccia. *16mo. pp. (16)+217. vignette. 12 figs. (6 head-pieces). T. of c. Vicenza.*
In his preface Carcano (also called Sforzino) states that this treatise is the result of 40 years' experience as a falconer, and the perusal of all the Italian and French books he could find relating to Falconry. It is one of the best known Italian works on falconry and was extensively copied by subsequent writers; numerous editions are known, the first appearing in 1547. The present copy contains the separately printed woodcut on the last leaf.

1645. Del l'arte del strucciero; con il modo di conoscere e medicare falconi, astori e sparavieri, et tutti gli uccelli di rapina. *12mo. pp. 82. illust. T. of c. Milano.*
Another curious work on falconry illustrated by woodcuts in the text, among them pictures of instruments used in treating accipitrine diseases. Not listed in the *Br. Mus. Nat. Hist. Cat.*

CARDANO, Girolamo [1501–76].
1557. De rerum varietate libri XVII. Adiectus est capitum, rerum & sententiarum notatu dignissimarum index. 1st ed. *folio. pp. 12+708+32. illust. Basileae.*

CARDIFF NATURALISTS' SOCIETY.
Cardiff, Wales.
1867–*date*. Report and Transactions.

1900. The birds of Glamorgan. *4to. pp. xxv+27–163. front. 4 pl. index. Cardiff.*
An annotated list of the 235 species, compiled by a committee of the society.

CARDINAL, THE.
1923–*date*. Pub. (twice a year) by the Audubon Society of the Sewickley Valley. *Sewickley, Pa.*
An attractive little magazine recording the activities of the Audubon Societies of western Pennsylvania. Most of the volumes are a present to the E.S.W. Library from the editor.

CAREW, Richard.
1811. The Survey of Cornwall. *4to.*

CARINTHIA.
1852–1930. Naturhist. Landesmuseum von Kaernten. Jahrbuch &c. Hefte 1–45. *Klagenfurt.*

CARL, F., *Pub.*
n.d. The canary. *24mo. pp. 25. 1 fig. London.*
Instructions for keeping it in health and song, and management during the breeding season. Forming booklet No. 5 of the 'Nutshell Series'.

n.d. The border fancy canary. *24mo. pp. 26. 1 fig. London.*
Instructions for keeping in health and song; also management during the breeding season. Forming booklet No. 23 of the 'Nutshell Series'.

n.d. Green canaries. *24mo. pp. 25. London.*
Instructions for breeding, keeping, and exhibiting the Norwich and Yorkshire varieties. Forming booklet No. 24 of the 'Nutshell Series'.

CARLEER, Léon Henri Marie.
1861. Examen des Principales Classifications. *8vo. Bruxelles.*

CARLIER, Claude.
1770. Traité des bêtes de laine; ou, Méthode d'élever et de gouverner les troupeaux aux champs, et à la bergerie. *2 vols. 4to. Paris.*

CARON, Jos. Ed.
[1920]. Our obligation to the birds because of their usefulness to agriculture. *See* CANADA. DOMINION PARKS BRANCH. Ministers of agriculture give views on bird protection.

CARPENTER, Alfred [1847–1925] and **BARKER,** D. W.
1926. Nature notes for ocean voyagers, etc. 2nd ed. *8vo. pp. xi+(1)+212. front. 2 pl. (portr.). 152 figs. (27 birds). 1 map (fold.). T. of c. glossary. index. London.*
Bird notes on sea birds will be found in chapter IV, pp. 48–68.

CARPENTER, Geoffrey Douglas Hale.
1920. A Naturalist on Lake Victoria. *8vo. pp. 333. map. col. pl., and 87 other illust. (London.)*
Devoted to mammals, birds, reptiles, etc., of Africa, the results of 40 months' intensive study on the shores and uninhabited islands of Lake Victoria, the second largest lake in the world.

1925. A naturalist in East Africa; being notes made in Uganda, ex-German and Portuguese East Africa. *8vo. pp. 187+(17). front. 24 pl. 3 maps (1 fold.). 2 figs. T. of c. Oxford.*
Notes on the fauna observed during the years 1914–18, whilst engaged as a Medical Officer in various hospitals during the Great War.

CARPENTER, William Benjamin [1813–85].
1844. Popular Cyclopædia of Natural Science. Zoology, being a sketch of the classification, structure, distribution, and habits of animals. *2 vols. London.*
The portion relating to Birds are treated in vol. I, chapter IV, pp. 361–522, with 128 illustrations (figs. 177–304). A new edition, thoroughly revised by W. S. Dallas, was issued in 1857–8 and again in 1866–71 (q.v.).

1849. *See* Cuvier, G. L. C. F. D.

1857. Zoology; being a Systematic account of the general structure, habits, instincts, and uses of the principal families of the animal kingdom. *2 vols. 8vo.* Vol. I, *pp. vi+586. 344 figs. T. of c. London.*
A new edition under a somewhat different title, edited by W. S. Dallas, of the author's original work published in 1844 (q.v.). It forms one of the volumes in Bohn's Scientific Library. Birds are treated in chapter IV, pp. 361–522, with 128 fine wood engravings, the index being in vol. II. A further edition, apparently without alterations, appeared in 1866 (q.v.).

1866. Zoology; being a Systematic account of the general structure, habits, instincts, and uses of the principal families of the animal kingdom; as well as of the chief forms of fossil remains. *2 vols. 8vo.* Vol. I, *pp. vi+586. 344 figs. T. of c. London.*
A reprint of the 1857 edition.

CARRIÈRE, Justus Wilhelm Johannes [1854–93].
1885. Die Sehorgane der Thiere, etc. *8vo. pp. vi+205. 1 pl. München.*

CARSTED, A.
n.d. Unsere Vögel in Sage, Geschichte und Leben. 2nd ed. *4to. pp. 118. illust. pl. Leipzig.*
Folk-lore of birds in rhyme. Among the illustrations is one of the battle between the cranes and the pygmies.

CARTWRIGHT, George.
1792. A Journal of Transactions and Events . . . during a residence of sixteen years on the Coast of Labrador, etc. *3 vols. 4to. illust. Newark.*

CARUS, IULIUS VICTOR [1823–1903].

1861. Bibliotheca Zoologica. *2 vols. 8vo.* Continuation of Engelmann's Bibliotheca Historico-Naturalis (1700–1846); further continuation, Taschenberg's Bibliotheca Zoologica, 5 vols., 1886–1907. *London and Leipzig.*

One of the most important works on zoological bibliography extant and of immense value to the librarian and advanced student. For a more complete annotation *see* ENGELMANN, WILHELM, 1846.

[1863]–75. Handbuch der Zoologie. *2 vols. 8vo. Leipzig.*

One of the best systematic treatises on the subject. Only the first volume deals with vertebrates, by Carus; vol. 2 is on invertebrates by the author and C. E. A. Gerstaecker.

1872. Geschichte der Zoologie bis auf J. Müller und C. Darwin. *8vo. pp. 12+739. München.*

This important work of reference forms vol. XII of the *Geschichte der Wissenschaften in Deutschland, Neuere Zeit.* The French translation by P. O. Hagenmüller, Louis Olivier, and E. de Tannenberg, and notes by A. Schneider, Paris, 1880, is much to be preferred on account of the numerous additional comments and the later quotation of authorities. Both are, however, admirable treatises.

1880. Histoire de la zoologie depuis l'antiquité jusqu'au XIXe siècle; tr. [de l'allemand] par P. O. Hagenmüller et notes par A. Schneider. *8vo. pp. 8+623. Paris.*

A most important work of reference, much utilized by the present Compiler.

1884. Prodromus faunae Mediterraneae. *Stuttgart.*

CARVER, JONATHAN [1732–80].

1778. Travels through the Interior of North America, etc. *1 vol.*

The first edition of an important Americana zoologica.

CARY, MERRITT.

1911. A biological survey of Colorado. *8vo. pp. 256. illust. pl. map.* (North American fauna, no. 33.) *Washington.*

CASSEL. Verein für Naturkunde zu Cassel. (Founded 1836.)

1837–47. Jahresbericht (1st series).

1847–60. Bericht (2nd series).

1860–94. Bericht, etc. (3rd series).

1894–1930. Abhandlungen und Bericht.

CASSELL'S BOOK OF BIRDS.

?1875. From the text of Dr. Brehm, by Thos. Rymer Jones. *4 vols. col. pl. London.*

CASSELL'S NATURAL HISTORY.

1876–83. Edited by P. Martin Duncan. *6 vols. 4to. illust. London.*

The first five volumes of this attractive, popular, and systematic work contain the vertebrate zoology. The monkeys are described by the Editor, the carnivora and other mammals by W. K. and T. J. Parker, W. B. Dawkins, H. W. Oakley, A. H. Garrod, and the Editor; R. B. Sharpe describes the birds; the Editor the reptilia and amphibia; and H. G. Seeley the fishes.

1883–9. Aves. *See also* SHARPE, R. B.

A separate and amended edition on the birds, by Bowdler Sharpe.

n.d. Natural History. *6 vols. 4to. London.*

This undated edition differs slightly from the 1876–83 issue.

CASSERLY, GORDON.

1925. Dwellers in the jungle. Illust. by Warwick Reynolds. *8vo. pp. 7+255. front. 15 pl. T. of c. London.*

The author says he describes them as he knew them—these dwellers in the jungles of the Terai, the Satpura, the Kanera, and central India.

CASSIN, JOHN [1813–69].

1845–76. *See* UNITED STATES. VOYAGE, WILKES EXPEDITION.

[1851–3]. Catalogue of the Vulturidae in the collection of the Academy of natural sciences of Philadelphia. *8vo. pp. (8)+(20)+(16)+(20)+(16). Philadelphia.*

This catalogue gives the names of the various species of five families represented in the collection of the Academy of Natural Sciences of Philadelphia. They are really five catalogues bound in one, from the Godman library with bookplate.

1852. Ornithological report of birds brought from Syria, &c. *See* LYNCH, W. F., OFFICIAL REPORT OF THE U.S. EXPEDITION TO EXPLORE THE DEAD SEA, &c. Art. IV.

1853–6. Illustrations of the birds of California, Texas, Oregon, British, and Russian America. Intended to contain descriptions and figures of all North-American birds not given by former American authors, and a general synopsis of North American ornithology. *4to. pp. viii+298. front. (col.). 49 pl. (col.). T. of c. index. Philadelphia.*

This work was issued in ten parts from 1853–5, the preface, contents, and index being added in 1856. In the preface (proposed) further volumes are mentioned, which, however, never materialized. Fifty species are fully described and figured, and many more are treated briefly in the synopsis. Three species are described as new. The plates are colored by George G. White.

The following notes, furnished by Dr. C. W. Richmond, are inserted in an incomplete copy, some parts of which are of the first edition, with the original wrappers, now in the E.S.W. Library: 'No. 1 (first edition) was published in 1852 and is now very rare (see Fox, *Auk*, 1901, pp. 291, 292). I do not know how many copies are extant but there is one in Phila. Acad. Library, and one in National Museum here. It is the only part of which there was a second edition, but as the printers used the same cover for several parts, altering the number of the part to suit, they failed to scratch out the "Second edition" feature of it, and persons who see the covers may be misled.

'No. 1 (edition two), *pp. 1–30, pls. 1–5,* received by Phila. Acad. July 12, 1853.

No. 2, *pp. 31–62, pl. 6–10,* received by Phila. Acad. Nov. 8, 1853.
No. 3, *pp. 63–96, pl. 11–15* „ „ Feb. 7, 1854.
No. 4, *pp. 97–128, pl. 16–20* „ „ May 9, 1854.
No. 5, *pp. 129–58, pl. 21–5* „ „ July 11, 1854.
No. 6, *pp. 159–90, pl. 26–30* „ „ Sept. 12, 1854.
No. 7, *pp. 191–212, pl. 31–5* „ „ Nov. 21, 1854.
No. 8, *pp. 213–40, pl. 36–40* „ „ Mar. 13, 1855.
No. 9, *pp. 241–72, pl. 41–5* „ „ June 12, 1855.
No. 10, *pp. 273–98, introductory pages, title, etc., and pls. 46–50.*

'I have not found any date for it in the Academy's printed minutes, but as the title is dated 1856, I presume it was issued in that year.

'I have not seen an original No. 10, but the above pages and plates are those that were left over after No. 9 was issued, I am taking it for granted that they were all issued at one time in No. 10.

'The dates of receipt by the Academy are probably fairly good as dates of publication, as Cassin doubtless handed in a copy of each part as published, but the dates are not absolute, as the ones given above were the dates of meetings of the Academy, and the parts may have been handed in to the Academy Library several days before.'

1855. Report on Birds during the U.S. Naval Astronomical Expedition to the Southern Hemisphere, 1849–1852. *2 vols. folio. Birds,* vol. II, *pp. 172–206. col. pl. Washington.*

The descriptions are mostly of Chilean birds.

1855–9. *See* UNITED STATES. PACIFIC RD. SURVEY.

1856. Narrative of the expedition of an American squadron to the China seas and Japan. *See* PERRY, MATTHEW CALBRAITH.

1858. United States exploring expedition. During the years 1838–42 . . . Mammalogy and ornithology by John Cassin. *See* UNITED STATES EXPLORING EXPEDITION, 1838–42. *with folio atlas. Philadelphia.*

1858. Reports of explorations and surveys . . . for a railroad from the Mississippi River to the Pacific

Ocean . . . Birds; by S. F. Baird. With the co-operation of John Cassin, &c. *See* U.S. PACIFIC RAILROAD SURVEYS.

1859. La Plata, Argentine Confederation, etc. Exploration by order of the U.S. Govt. under Thos. J. Page, U.S.N. *1 vol. 8vo.* *New York.*

1860. Birds of North America, by S. F. Baird . . . with the co-operation of J. Cassin, &c. *See* BAIRD, S. F., CASSIN, and LAWRENCE.

1862. Illustrations of the birds of California, Texas, Oregon, British and Russian America, and a general synopsis of North American Ornithology . . . 1853–55. *col. pl.* *Phila.*

1865. Illustrations of the birds of California, Texas, Oregon, British and Russian America. Intended to contain descriptions and figures of all North American birds not given by former American authors, and a general synopsis of North American ornithology. *4to. pp. viii+298. front. (col.). 49 pl. (col.). T. of c. index.* *Philadelphia.*

This issue seems identical with that of 1853–6 (q.v.), except that the present copy has guards to the plates, which apparently were removed from the copy of 1856.

CASSINIA. A Bird Annual. Proceedings of the Delaware Valley Ornithological Club of Philadelphia. Edited by Witmer Stone. *roy. 8vo.* Pictured, tinted wrappers. Illustrated. Wrapper. Sub-title: An Annual devoted to the Ornithology of Pennsylvania and New Jersey.
No. I, 1890–No. XXXII, 1930.
The first four numbers were published as [First Series] Proceedings of the Delaware Valley Ornithological Club (q.v.), 1890–1900, an abstract having been issued later by the Club: *Cassinia.*

This admirably edited and printed Year Book has high rank as a scientific periodical. Its contributors, including its able Editor, S. Witmer Stone, are well known as writers and scientific investigators.
Among them are: F. R. Cope, W. B. Evans, S. N. Rhoads, C. J. Peck, J. F. Street, J. D. Kuser, G. S. Morris *et al.*
Cassinia follows a rule (the observance of which might well be recommended to publishers of certain other periodicals) of printing on its wrappers the actual date of issue of each number.

CASSINO, SAMUEL EDSON.
1877–1930. The Naturalists' Directory, etc. *8vo.* *Salem.*

These useful lists have been irregularly issued for more than half a century.

CASTELL, A. VON. *See* HALLER, 1755.

CASTELLI, PIETRO [1575–1657].
1668. De Hyaena odorifera . . . Editio nova auctior. *12mo. pp. 79+5. 5 pl.* *Francofurti.*

The first edition is dated 1638 and the text is incorporated in part I of J. Johnstonus, *Historiae naturalis de Quadrupedis*, etc. The Blacker Library has also a copy bound with Horn, Georgius, *Arcamosis*, 1669.

CASTELNAU, FRANCIS L. DE LAPORTE, *comte de* [1812–80].
1843. Essai sur le système silurien de l'Amérique septentrionale. *folio. pp. 16+56. 27 pl.* *Paris.*

1850–9. Expédition dans les parties centrales de l'Amérique du Sud . . . pendant 1843 à 1847, etc. *14 vols. 8vo, 4to, and folio.* *Paris.*

This classic work treats of the natural history of South America, the text chiefly from the pen of Count de Castelnau, assisted by M. P. Gervais (mammalia); M. O. Des Murs (birds); and A. Guichenot (reptiles). It is one of the most valuable contributions of its kind in all zoological literature.

1855–7. Expédition dans les parties centrales de l'Amérique du Sud. Partie 7. Zoologie. *3 vols. 176 pl. (141 col.).* *Paris.*

A separate publication on the zoology of the famous expedition.

CASTI, GIAMBATTISTA.
1804. Gli Animali parlanti. Poema epice, etc. *4 vols.* *Amsterdam.*

One of the earliest editions of a famous poem on speaking animals.

1822. Gli animali parlanti. *12mo.* *London and Florence.*

CATALOGUE OF THE ASHMOLEAN MUSEUM. 1836. *See* ANONYMOUS.

CATALOGUE OF THE AUSTRALIAN BIRDS IN THE AUSTRALIAN MUSEUM. *See* RAMSAY, EDWARD PIERSON.

CATALOGUE OF THE BOOKS, MANUSCRIPTS, MAPS AND DRAWINGS IN THE BRITISH MUSEUM (NATURAL HISTORY). 1903–22. *See* BRITISH MUSEUM (NATURAL HISTORY).

CATALOGUE OF THE CASES OF BIRDS IN THE DYKE ROAD MUSEUM, BRIGHTON. 1901, 1927. *See* BOOTH, E. T.

CATALOGUE OF A COLLECTION OF FOSSILS. *See* AUSTRALIAN MUSEUM, 1883.

CATALOGUE OF SCIENTIFIC PAPERS, 1800–1900.
1867–1900. Pub. by the Royal Society. *17 vols.* Continued as the Internat. Cat. of Sc. Lit. (q.v.). *London.*

A monumental bibliography of scientific literature, of extreme value to librarians and advanced students.

CATANIA. Accademia Gioenia di scienze naturali.
1824–*date*. Atti, various eras.
1888–*date*. Bullettino delle sedute, 2 serie.

CAT COURIER. 1912–*date*. *Rochester, New York.*

CATESBY, MARK [1679?–1749].
1750. Piscivm, serpentvm, insectorvm, aliorvmqve nonnvllorvm animalivm . . . qvas Marcvs Catesby in posteriore parte splendidi illivs operis qvo Carolinae Floridae et Bahamensivm insvlarvm tradidit historiam natvralem, eivsqve appendice descripsit, additis vero imaginibvs piscivm, tam nostrativm qvam aliarvm regionvm; avxervnt vivisqve coloribvs pictas edidervnt Nicolavs Fridericvs Eisenberger et Georgivs Lichtensteger. *48½ cm. folio. pp. 102. 100 col. pl.* Latin and German in parallel cols. *Nuremberg.*

The first edition of this celebrated work appeared in 1731–43 as a French-English publication. Incomplete copies of the various printings are common enough but complete sets, with all the plates, are rare.

1754. The natural history of Carolina, Florida and the Bahama Islands. *2 vols.*

A rare printing not listed in the *Cat. Br. Mus. (Nat. Hist.).*

[**CATESBY,** M. (*contd.*)]

1771. (The) natural history of Carolina, Florida, and the Bahama Islands: containing the figures of birds, beasts, fishes, serpents, insects, and plants, etc. *2 vols. folio.* Vol. I, *pp.* (*2*)+*vii*+(*1*)+*xliv*+*100*+*2. front.* (*map col. fold.*). *100 pl.* (*col. fold.*). *T. of c. addend.* Vol. II, *pp.* (*2*)+*120*+(*6*)+*2. 120 pl.* (*col.*). *append. index.* *London.*

A revised 2nd (or 3rd?) edition of the first issue of 1731–43, edited by G. Edwards. In this edition the appendix is not separately paged. The birds are treated in vol. I, pp. 1–100, with 100 colored plates, and also in the appendix, vol. II, pp. 101–20, with nine colored plates. The text is in English and French in parallel columns. Each plate contains a typical colored plant of the district as well as a bird, both of which are briefly described in both languages.

1772–81. Verzameling van uitlandsche en zeldzaame Vogeln, &c. *See* EDWARDS, G.

A Dutch edition of the English-French printing edited by G. Edwards, in which the birds are described from the text of the *Natural History of Carolina, Florida,* etc.

1777. Piscium, serpentum, insectorum . . . imagines . . . Die Abbildungen verschiedener Fische, Schlangen, Insecten, einiger andern Thiere und Pflanzen, welche Herr Marcus Catesby . . . in seinem Werke der natürlichen Historie von Carolina und den Bahamischen Inseln beschrieben, in ihren natürlichen Farben vorgestellt von N. Fr. Eisenberger, G. Lichtensteger und W. Krorr. (Latein u. deutsch.) *122 S. Gr. folio. Mit 190 fein kolor. Tafeln.* *Nürnberg.*

A later Latin-German printing of the famous work.

1777. Supplementa. *pp. 4*+*10*+*8. 9 col. pl.* *Norimbergae.*

This is the supplement separately bound, but usually included in the Latin-German editions of *Natural History of Carolina, Florida,* etc.

CATHELIN, FERNAND [1873–].

1920. Les migrations des oiseaux. *8vo. pp.* [*2*]+*168. 11 figs. in text. T. of c.* *Paris.*

A scientific study of migration, giving among other topics the various theories of that important habit in birds.

1927. Quinze conférences sur l'oiseau, son rôle—sa protection. *12mo. pp.* (*4*)+*277. 1 fig. T. of c.* *Paris.*

Fifteen conversations on the natural history of birds, including a chapter on the general principles and laws of *oology.*

1928. Quinze Conférences sur l'Oiseau. *12mo. pp. 227.* *Paris.*

A second printing of the 1927 edition.

CAT JOURNAL. **1901–12.** *Palmyra, Rochester, New York.*

CATLOW, MARIA E.

1852. Popular Scripture Zoology, containing a familiar history of the animals mentioned in the Bible. *8vo. pp. 16*+*360. 16 col. pl.* *London.*

1865. Scripture natural history; containing a familiar history of the animals mentioned in the Bible. *16mo. pp. xvi*+*360. front.* (*col.*). *15 pl.* (*col.*). *index.* *London.*

A work for young biblical students in the elucidation of the branch of Natural History of the Scriptures. The class Aves will be found on pp. 157–236 with six colored plates, depicting 16 species of birds mentioned in the Bible.

CATON, JOHN DEAN [1812–].

1877. The Antelope and Deer of America. *8vo. pp. 426. illust.* *New York.*

The first contribution on this subject by this author was made to the *Trans. Ottawa* (Canada) *Acad. of Nat. Sciences* in 1868. A second edition, with few changes, appeared in 1881.

CAT REVIEW. **1903–*date.*** *Dayton, O.*

CAUB, JOHANN WONNECKE VON [CUBA, JOHANNES DE].

1511. Ortus Sanitatis: de Herbis et Plantis, de Animalibus et Reptilibus, de Avibus et Volatilibus, de Piscibus et Natatilibus, de Lapidibus et in Terre Venis nascentibus, de Urinis, de facile acquisibilibus, Tabula medicinalis cum Directorio generali per omnes Tractatus; black-letter, printed in double columns, with woodcut border on title and on rev. a full-page woodcut, and many hundred wood-engravings. *folio.*
Venetiis, per Bernardinum Benalium, etc.

'In 1485 was printed the first dated copy of the volume known as *Ortus* [or Hortus] *Sanitatis.* Though said by its author Johann Wonnecke von Caub (Latinized as Johannes de Cuba) to have been composed from a study of the collection formed by a certain nobleman who had travelled in Eastern Europe, Western China, and Egypt—possibly Breidenbach—it is really a medical treatise, and its zoological portion is mainly an abbreviation of the writings of Albertus Magnus, etc. The third *tractatus* deals with Birds, including among them Bats, Bees, and other flying creatures, *but as it is one of the first printed books in which figures of Birds are introduced* it merits notice, though most of the illustrations, which are rude woodcuts, fail to give any precise indication of the species intended to be represented.'—*Newton's Dictionary of Birds.*
See, also, CUBE.

1517. Ortus (Hortus) sanitatis. *4to* (not paged). *Strassburg.*

The above is one of numerous editions, published in several languages, of a celebrated herbal. In the copy in hand (from Dean Adams' Library) sig. Q iv begins with a *Prologus* in *de Avibus. Capitulum I,* and ends with *Pisces, Cap. XXII,* displaying more than 100 woodcuts of birds. In other words, 122 chapters are devoted to birds of the world, as known to fifteenth-century writers. This *Gart* (*Garten*) *der Gesundheit* was among the first of the German incunabula devoted to natural history.

CAULIACO, GUIDO DE (GUY DE CHAULIAC).

1559. Chirurgia, nunc iterum . . . purgata. *pp. 560.* *Lugduni.*

This celebrated medieval surgeon not infrequently described animal life in his works, and especially in his famous treatise on Surgery. The Osler Library has most of his publications.

1585. Chirurgia. *2 vols. in 1.*

One of the many editions of this celebrated medieval work on surgery, that contains a few references to animals.

CAWSTON, EDWIN.

(*ca.* **1888**). Ostrich Farming in California. *8vo.* *Pasadena, California.*

An account of one of the first ostrich farms in North America.

CAYLEY, NEVILLE W.

1920. Our birds. *4to. 7 pl. T. of c.* (Australian bird series. 1st ed., no. 1.) *Sydney.*

Seven charming colored groups of Australian birds, with brief descriptive text, by a well-known artist whose autograph appears on the cover.

CAZWINI, ZAKARIYA (13th century).

1912. Aja'iba'l-makhluqat. Cosmography and natural science. *large 4to. lithograph. pp. 606. col. illust.* A Hindustani translation from the original Persian. *Lucknow.*

CECIL, M. W. (*Lady* WILLIAM).

1904. Bird notes from the Nile. *8vo.* *London.*

CEDERHIELM, JOHANN.

1798. Faunae Ingricae Prodromus . . . praemissa Mammalium, Avium, Amphibiorum et Piscium enumeratione. *8vo. pp. 18*+*348. 3 col. pl.* *Lipsiae.*

CENSUS OF FIFTEENTH CENTURY BOOKS OWNED IN AMERICA. *See* BIBLIOGRAPHICAL SOCIETY OF AMERICA, 1919. *New York.*

CENTRAL ASIATIC EXPEDITIONS OF THE AMERICAN MUSEUM OF NATURAL HISTORY.

1927. Natural history of Central Asia. *4to. illust. pl. maps.* *New York.*

CENTRALBLATT FÜR NATURWIS. UND ANTHROPOLOGIE.

1853–4. 1 and 2 Jg. (all pub.).

CERCLE ZOOLOGIQUE CONGOLAIS. *See* REVUE ZOOLOGIQUE AFRICAINE.

CERESA, GUISEPPE DE.

1830–40. Storia naturale generale dei colibri degli uccelli mosca, delle galbule e dei promeropi di J. B. Audebert e L. P. Vieillot. *See* AUDEBERT, J. B.

ČEŠKA AKADEMIE VÉD A UMĚNÍ V PRAZE.

1891–*date.* Almanach.

1895–*date.* Bulletin International.

1891–*date.* Palaeontographica Bohemiae.

CETTI, FRANCESCO [1726–78].

1774. I Quadrupedi di Sardegna. *8vo. pp. 24+220. text-figs. 3 pl. 1 map.* *Sassari.*

A scientific and early contribution to south European island fauna. The author's name does not appear on the title-page, and there is an important appendix of 63 pages that is often published separately and with no date. This volume is the first of a series of monographs on the vertebrate zoology of Sardinia.

1776. Gli uccelli di Sardegna. *12mo. pp. 334. 12 cop. pl.* *Sassari.*

The author divides this little work, intended for popular consumption, into Land birds and Water birds. Vol. 2 of his monograph series.

1777. Anfibi e pesci di Sardegna. *20 cm. 1 p. l. pp. 208+[8]. 5 pl. (1 fold.).* Binder's title reads vol. 3 of his works. *Sassari.*

1783–4. Naturgeschichte von Sardinien, I–II. *2 vols.* *Leipzig.*

This is a German translation of the well-known Italian original—3 volumes on the vertebrates of Sardinia.

CEYLON BRANCH OF ROYAL ASIATIC SOCIETY OF GREAT BRITAIN AND IRELAND. *See* ROYAL ASIATIC SOCIETY . . . CEYLON BRANCH.

CEYLON JOURNAL OF SCIENCE.

1903–*date.* B. Zoology and Geology. Spolia Zeylanica.

1922–*date.* C. Fisheries. Bulletin of Ceylon Fisheries.

CEYLON MARINE BIOLOGICAL LABORATORY. *Colombo.*

1904–12. Reports.

CHABANAUD, PAUL. *See* BABAULT, GUY, 1920–4

CHAINE, JOSEPH.

1922. Anatomie comparative. *8vo. pp. 8+276.* *Paris.*

CHALLENGER SOCIETY. (Founded 1903.)

1909. Scientific and Biological Researches in the North Atlantic . . . conducted by R. N. Wolfenden. *4to. pp. 7+234. 7 pl. 1 col. map.* (Wanting.) *London.*

This particular issue of a very useful society contains a report on Fishes (collected during a cruise in 1907) by E. W. L. Holt and L. W. Byrne.

1912. Science of the sea. An elementary handbook of practical oceanography for travellers, sailors, and yachtsmen, prepared by the Challenger society for the promotion of the study of oceanography. Ed. by G. Herbert Fowler. *pp. xviii+452. illust. 8 charts (part fold.).* *London.*

1928. Science of the sea. 2nd ed., ed. by E. J. Allen. *8vo. pp. 24+502. illust. portr. maps.* *Oxford.*

CHALLENGER, Voyage of H.M.S.

1878. *See* WILD, J. J.

1880–95. Scientific Results. *40 vols.*

The reports on the zoological results of this extremely important and famous scientific expedition are commented on under various captions in this *Catalogue.* A full account of the vertebrate zoology will also be found in the *Br. Mus. Cat.* (*Nat. Hist.*), p. 716.

1881–2. Report on the scientific results of the voyage of H.M.S. Challenger, during the years 1873–76; . . . prepared under the superintendence of . . . Sir C. W. Thomson, and of John Murray . . . Zoology—vols. II and IV. *See* THOMSON, A. W. and MURRAY, *Sir* J.

1897. Portraits of the Contributors, etc. *4to.* *London.*

CHAMBERLAIN, MONTAGUE [1844–1915].

1882. A catalogue of the birds of New Brunswick, with brief notes relating to their migrations, breeding, relative abundance, etc. *8vo. pp. 25–68+(24 blank leaves).* *Saint John.*

Reprinted from the Natural History Society of New Brunswick, Bulletin No. 1, with the addition of a title-page, but without alteration of pagination. The present annotated Catalogue is divided into two Sections; the first embracing the result of observations made in the Counties of Saint John and King's; the second containing the names of species which have not been found within that area, but which have been observed elsewhere in the Province. Of the Northern and Central Sections very little systematic investigation has been made, so that for the present the catalogue—as the author states—forms really only a starting-point. Altogether 269 species are so far recorded.

1887. A catalogue of Canadian birds, with notes on the distribution of the species. *8vo. pp. v+(3)+143. append. index.* *Saint John, N.B.*

An annotated list of species, with scientific and common names, and their known distribution in Canada. The Appendix gives alterations in the nomenclature of North American birds, as well as additions to the avifauna since the list was issued.

1888. A systematic table of Canadian birds. *folio. pp. (4)+i–iii+(1)+14. 2 append.* *Saint John, N.B.*

The species of the Table are identical with those of the Catalogue of 1887, excepting a few additions and eliminations which will be found noted in the Appendices. The species are arranged in tabular form without annotations of any kind except in the appendices.

1891. The birds of Greenland. By A. T. Hagerup. Ed. . . . by M. Chamberlain. *See* HAGERUP, A. T.

1891. A popular handbook of the ornithology of the United States and Canada. *See* NUTTALL, THOMAS.

1894. A popular handbook of the ornithology of eastern North America. *See* NUTTALL, THOMAS.

1903. A popular handbook of the birds of Canada and the United States. *See* NUTTALL, THOMAS.

CHAMBERLAIN, WALTER.

1888. Notes on Non-Volant Birds. *8vo.* *Cupar, Scotland.*

CHANCE, EDGAR.

1922. The cuckoo's secret. *8vo. pp. xiv+239. front. 9 pl. 2 plans fold. T. of c. append. London.*

A record of four seasons' detailed observations on what Chance considers to be the same female Cuckoo. In 1920 probably every egg laid by this cuckoo was located, the author from previous experience being actually able to indicate the date and hour at which each egg was laid. Films were obtained of the actual laying, upon which he bases his assumption that the cuckoo does not first lay her egg elsewhere and then transport it in her beak, or regurgitate it into the nest of her victim, but actually lays it in the nest of her dupe. However, others still differ, notably Mr. Stuart Baker, whose paper on this subject (*Bull. Brit. Ornith. Club*, March 13, 1922) should be read in conjunction with the present work.

CHANDLER, LESLIE G.

n.d. Bush charms; with an introduction by Charles Barrett. Illust. photos. by the author. *12mo. pp. (2)+114+(2). front. 26 pl. 3 figs. T. of c. index.* *Melbourne.*

References to birds are numerous and occur throughout the volume, over one-half of the illustrations being devoted to depicting them and their nests.

CHANG HUA 張華 [A.D. 232–300].

1592. Po wu chih 博物志; A compilation of short articles on strange animals, birds, insects, fishes, etc. (In Han wei ts'ung shu 漢魏叢書 work 63, ts'ê 68.) *24×15·7 cm.*

One of several works on general zoology from the Gest Library.

CHANG T'ING-YÜ 張廷玉 [1672–1755] and **others.**

1722. Fên lei tzû chin 分類字錦; A classified dictionary of words and phrases on all kinds of animals, birds, fishes, etc., chüan 55–60. *27×17 cm.*

Another classic on zoology from the Gest Library.

1727. Tzû shih ching hua 子史精華; Selected extracts from outstanding historical and philosophical works on 30 different subjects, with material for a work on animals, birds, fishes, etc., chüan 135–9. *24·7×16·2 cm.*

An important source of zoological literature from the Gest Chinese Library.

CHANTER, JOHN FREDERICK.

1907. A history of the parishes of Lynton and Countisbury. *pp. (6)+7–192. front. 7 pl. 1 fig. 7 pedigrees (3 fold.). T. of c. append. index.* *Exeter.*

The natural history occupies pp. 126–56, the account of the birds pp. 126–33, the list consisting of about 107 species.

CHANTER, JOHN ROBERTS [1865–1900].

[**1877**]. Lundy Island: . . . features in natural history. *8vo. pp. (2)+171. front. 5 pl. 1 fig. 1 map (fold.). T. of c. append.* *London.*

An account of the birds is on pp. 132–40; the appendix also, pp. 153–7, contains a full list of those found on the island at various seasons of the year.

CHAO PIAO-CHAO 趙彪詔 (18th cent.).

1834. T'an hu 談虎; A discourse on the tiger. *pp. 39.* (In Chao tai ts'ung shu 昭代叢書戊集 chüan 50.) *24·3×15·5 cm.*

CHAPIN, JAMES P.

1923. The preparation of birds for study. Instructions for the proper preparation of bird skins and skeletons for study and future mounting. *8vo. pp. 45. 25 figs.* *New York.*

This leaflet is one of a series (No. 58) intended to furnish accurate information in regard to the preparation of specimens of various kinds for Museum purposes.

CHAPMAN, ABEL [1851–1925].

1889. Bird-life of the borders, records of wild sport and natural history on moorlands and sea. *8vo. pp. xii+286. 15 pl. 39 figs. 1 diagr. T. of c. index.* *London.*

A popular account of experiences and observations of a sportsman naturalist on the moors and north-east coast of England. A second, enlarged edition, was issued in 1907.

******** and **BUCK,** WALTER J.

1893. Wild Spain: records of natural history. *8vo. pp. 20+472. 51 pl. map. illust. in text.* *London.*

A semi-popular account of the vertebrates commonly found in the Iberian peninsula.

1896. First Lessons in the Art of Wild-fowling. *8vo.* *London.*

1897. Wild Norway, with Chapters on Spitzbergen, etc. *8vo. pp. 13+358. 16 pl. text-figs.* *London.*

1907. Bird-life of the borders on moorland and sea, with faunal notes extending over forty years. *8vo. pp. xii+458. front. 54 pl. 30 figs. T. of c. index.* *London.*

A second edition of the 1889 issue. The book is divided into two sections; the first relating to the Cheviots and moorlands of the Border has been practically rewritten.

1908. On safari; big game hunting in British East Africa, with studies of bird life. *London.*

******** and **BUCK,** WALTER J.

1910. Unexplored Spain. *8vo. pp. xvi+416. front. 31 pl. 148 figs. T. of c. append. index.* *London.*

This work is a sequel to the authors' *Wild Spain*, 1893.

1928. Retrospect; reminiscences and impressions of a hunter-naturalist in three continents, 1851–1928. Illust. by Joseph Crawhall, W. H. Riddell (20 in colour), and the author. *8vo. pp. xix+(1)+353. front. (col.). 53 pl. (19 col.). 138 figs. T. of c. 3 append. index.* *London.*

CHAPMAN, FRANK MICHLER [1864–].

1889. A revision of the genus xiphorhynchus Swainson, with descriptions of two new species. Extracted from *Bull. Am. Mus. Nat. Hist.*, vol. II, no. 3. Author's edition issued July 5, 1889. *8vo. pp. 153–62.* [*New York.*]

A revision of this difficult group, the author being governed solely by the material before him in arriving at the conclusions presented. The material consisted of the Lafresnaye Collection, including Lafresnaye's types, the U.S. National Museum Collection, and the Lawrence, Maximilian, and Verreaux Collections.

1890. On a collection of birds made by Clark P. Streator in British Columbia, with field notes by the collector. Extracted from *Bull. Am. Mus. Nat. Hist.*, vol. III, no. 1. Author's edition issued October 8, 1890. *8vo. pp. 123–58.* [*New York.*]

A detailed description of the species (160) collected will be found on pp. 129–58.

1891. On the color-pattern of the upper tail-coverts in colaptes auratus.—On the birds observed near Corpus Christi, Texas, during parts of March and April, 1891. Extracted from *Bull. Am. Mus. Nat. Hist.*, vol. III, no. 2. Author's edition issued August 27, 1891. *8vo. pp. 311–28. 1 pl. (15 figs.).* [*New York.*]

1892. A preliminary study of the grackles of the subgenus quiscalus. Extracted from *Bull. Am. Mus. Nat. Hist.*, vol. IV, no. 1. Author's edition issued February 25, 1892. *8vo. pp. 20. 1 map (fold.).* [*New York.*]

1892. Notes on birds and mammals observed near Trinidad, Cuba, with remarks on the origin of West Indian bird-life. Author's edition, extracted from *Bull. Am. Mus. Nat. Hist.*, vol. IV, no. 1, article XVI, pp. 279–330. New York, December 29, 1892. *pp. 279–330. 3 figs.* *New York.*

This paper is divided as follows: (1) Notes on Cuban birds, pp. 282–313, annotated list consisting of 99 species observed; (2) Notes on Mammals observed, pp. 313–17; (3) Remarks on the Origin of West Indian Bird-life, pp. 318–30. The total number of Cuban species recorded is 257, of which 156 are land-birds and 101 water-birds.

1894. On the birds of the Island of Trinidad. *Bull. Amer. Mus. Nat. Hist.*, vol. VI, article I. *8vo. pp. 86.* *New York.*

Author's edition. The first few pages give a description of the Island, followed by 'Migrations', 'Call Notes and Song', 'Nesting', and 'The color of tropical birds', with a freely annotated list of 306 species, with their local names in English and French.

1898. Notes on birds observed at Jalapa and Las Vigas, Vera Cruz, Mexico. Author's edition, extracted from *Bull. Amer. Mus. Nat. Hist.*, vol. X, article II, pp. 15–43. *8vo. pp. (30). 1 pl.* *New York.*

1898. Bird-life; a guide to the study of our common birds. Illust. by Ernest Seton Thompson . . . with seventy-five full-page plates in colors. *8vo. pp. xvi+195. front. (col.). 74 pl. (col.). 24 figs. 1 diagr. T. of c. index.* *New York.*

A popular account of the commoner birds of eastern North America, prefaced by a general discussion of the bird's place in nature, its relation to man, its economic value, etc. The first edition was issued in 1897.

1899. Descriptions of five apparently new birds from Venezuela. Author's edition, extracted from *Bull. Amer. Mus. Nat. Hist.*, vol. XII. *8vo. pp. 153–6.* *New York.*

Five apparently new birds are described.

1899. Report on birds received through the Peary expeditions to Greenland. Author's edition, *Bull. Amer. Mus. Nat. Hist.*, vol. XII. *8vo. pp. 219–44. 8 figs.* *New York.*

An annotated list of 48 species of birds obtained on these expeditions, particularly series of young birds of Uria and Rissa, and of adults—especially of *Somateria* and *Falco.*

1900. A study of the genus Sturnella. Author's edition, extracted from *Bull. Amer. Mus. Nat. Hist.*, vol. XIII. *8vo. pp. 297–320. 8 figs.* *New York.*

A study of 734 skins of *Sturnella magna* and *S. neglecta* from various localities, from which the author advances the theory of descent from a common ancestor.

1900. Bird studies with a camera; with introductory chapters on the outfit and methods of the bird photographer. *8vo. pp. xiv+218. front. 9 pl. 113 figs. T. of c. index.* *New York.*

Another edition of this charming work was issued in 1914.

1901. A new race of the great blue heron, with remarks on the status and range of 'Ardea wardi'. Author's edition from *Bull. Amer. Mus. Nat. Hist.*, vol. XIV. *8vo. pp. 87–90.* *New York.*

This new race, *Ardea herodias fannini*, was named after John Fannin, in recognition of his services to the zoology of the region it inhabits, the north-west coast region, from at least Victoria northward.

1902. Handbook of birds of eastern North America. With Keys to the species and descriptions of their plumages, nests, and eggs, etc. *New York.*

A condensed scientific manual of the birds of eastern North America with as few technicalities as possible. Appendix 1 is a field key to the commoner eastern land birds. Appendix 2 gives changes in nomenclature and addition of certain birds to the list to date. The first edition was issued in 1895, with another printing of the present one in 1904, and a revised edition in 1927.

1902. List of birds collected in Alaska by the Andrew J. Stone expedition of 1901. Author's edition from *Bull. Amer. Mus. Nat. Hist.*, vol. XVI. *8vo. pp. 231–47.* *New York.*

An annotated list of the 68 species and subspecies.

****** and REED,** C. A.

1903. Color Key to North American Birds. *8vo. N.Y.*

For fuller description of this useful Key, see edition of 1912.

1904. Birds' Nests and Eggs. *Amer. Mus. Nat. Hist.* Guide leaf. No. 14. Author's reprint.

1904. Handbook of birds of eastern North America. 6th ed. *12mo. pp. xiv+431. front. (col.). 1 pl. (color chart). 18 pl. 116 figs. (one on inside cover). T. of c. 2 append. bibliog. index.* *New York.*

A further revised edition was issued in 1927.

1904. List of birds collected in Alaska by the Andrew J. Stone expedition of 1903. Author's edition, *Bull. Amer. Mus. Nat. Hist.*, vol. XX, pp. 399–406. *8vo. pp. [8].* *New York.*

An annotated list of 62 species based on a collection of 317 birds and 35 sets of eggs.

1904. A new grouse from California. Author's edition, *Bull. Amer. Mus. Nat. Hist.*, vol. XX, pp. 159–62. *8vo. pp. [4].* *New York.*

A detailed description of the Sierra Grouse (*Dendragapus obscurus sierrae, subsp. nov.*).

1905. A contribution to the life history of the American flamingo (Phoenicopterus ruber). Author's edition, *Bull. Amer. Mus. Nat. Hist.*, vol. XXI, pp. 53–77. *8vo. 16 figs.* *New York.*

Accompanying the account are 16 illustrations depicting the home-life of these birds.

1908. Camps and cruises of an ornithologist; with 250 photographs from nature by the author. *8vo. pp. xvi+432. front. (col.). 1 pl. (col.). 1 map. 259 figs. T. of c. index.* *New York.*

A popular account of the author's experiences in search of material for the 'habitat groups' of birds in the American Museum of Natural History, New York City.

1909. Bird-life, a guide to the study of our common birds. *8vo. pp. xii+195+(1)+v+(1)+88. front. (col.). 75 col. pl. (1 of eggs). 24 figs. 1 diagr. T. of c. append. index.* *New York.*

A popular account of the commoner birds of eastern North America, prefaced by a general discussion of the bird's place in nature, its relation to man, and economic value, etc. The drawings for the colored plates were made by Ernest Seton-Thompson. The Appendix, pp. i–vi+88, is intended entirely for teachers. The first edition was issued in 1897 without the Appendix.

[**CHAPMAN**, F. M. (*contd.*)]

1912. Color key to North American birds, with bibliographical appendix; with upward of 800 drawings, by Chester A. Reed. Rev. ed. *8vo. pp. x+356. front. (diagr.). 729 figs. (col.). 156 figs. in text. T. of c. append. bibliogr. index. New York.*

A work designed to enable the beginner easily to identify the birds he meets with in the field, by means of colored figures, structural details, and Keys to the species, which are arranged primarily according to colors. The first edition was issued in 1903.

1912. Handbook of birds of eastern North America. *New York and London.*

One of several printings.

1912. A new ibis from Mt. Kenia, British East Africa. Author's edition, *Bull. Amer. Mus. Nat. Hist.*, vol. XXXI, pp. 235–8. *8vo. pp. (4). 2 pl. New York.*

1912–15. Diagnoses of apparently new Colombian birds. Author's edition, *Bull. Amer. Mus. Nat. Hist.*, vol. XXXI, pp. 139–66 [and] vol. XXXIII, pp. 167–92. *2 vols. 8vo.* Vol. I, *pp. (28). 1 map.* Vol. II, *pp. (26). 1 map (fold.). New York.*

Diagnoses of apparently 68 new and subspecies based principally on collections made in the Cauca valley in 1910–11, and in the Magdalena Valley across the Eastern Andes through Bogota to Villavicencio, at their eastern base, in 1913. About 7,358 specimens were obtained.

1914. Descriptions of a new genus and species of birds from Venezuela. Author's edition, *Bull. Amer. Mus. Nat. Hist.*, vol. XXXIII, pp. 193–7. *8vo. 1 fig. New York.*

These descriptions are of birds from the base of Mt. Duida on the Orinoco river, and Cristobal Colon. Four new species are described.

[**1916**]. The travels of birds; our birds and their journeys to strange lands. *8vo. pp. (12)+160. front. 17 figs. 5 maps. T. of c. index. New York.*

A text-book on avian migration for nature study classes in schools.

1916. The habitat groups of North American birds in the American Museum of Natural History. Guide leaflet series No. 28, 2nd ed., revised and enlarged. *8vo. pp. 64. front. (col.). 34 figs. 1 map. New York.*

These beautiful groups of birds are designed to illustrate not only the habits but the haunts or 'habitats' of the species shown. Each group usually includes the nest, eggs, and young, besides the adult bird or birds, with a reproduction of from 60 to 160 square feet of the nest's immediate surroundings. The text opposite each illustration describes the birds in the group, their habits, etc., and where the studies for the picture were made.

******** and **others.**

1917. The warblers of North America. With twenty-four full-page plates, illustrating every species, from drawings by Louis Agassiz Fuertes and Bruce Horsfall, and half-tones of nests and eggs. 3rd ed. *8vo. pp. (6)+v–ix+(1)+306. front. (col. 6 figs.). 23 pl. (col. 118 figs.). 8 pl. (8 figs., nests; 126 figs, eggs). T. of c. index. New York.*

A monograph of the life-histories of the 74 species and subspecies of North American Wood Warblers, most of it originally published in *Bird-Lore*. Following a chapter on migration by W. W. Cooke, and one on the food of warblers by E. H. Forbush, comes the main body of the work taken up with detailed accounts of each species.

1917. The distribution of bird-life in Colombia; a contribution to a biological survey of South America. *8vo. pp. x+729. front. (map fold.). 6 pl. (col. 2 maps). 34 pl. (2 maps, 1 fold.). 21 figs. (maps). T. of c. append. bibliogr. index. New York.*

The most important contribution ever made to the subject, with its discussions not only of the relationship of the birds but of the varied characters of the country they inhabit, its forests, rainfall, and other conditions, etc. The systematic report is based upon a collection of skins made by the author and his assistants numbering 15,775, which represent 1,285 species and subspecies, of which 22 were new species, and 115 new subspecies. The work is replete with maps and distributional charts, also with four colored plates of birds from paintings by Louis Agassiz Fuertes who accompanied Dr. Chapman on the two expeditions, together with W. B. Richardson, Leo E. Miller, Arthur A. Allen, Geo. K. Cherrie, Paul G. Howes, Geoffroy O'Connell, Thos. M. King, and Howarth Boyle, all of whom materially contributed to the success of the undertaking.

1918. Our winter birds, how to know and how to attract them. Illustrations by Ernest Thompson Seton and Edmund J. Sawyer. *8vo. pp. x+180. front. 2 pl. (col.). 7 pl. 56 figs. T. of c. index. New York.*

A popular account of the winter birds of eastern North America.

1920. What bird is that? A pocket museum of the land birds of the eastern United States, arranged according to season. With 301 birds in color by Edmund J. Sawyer. *8vo. pp. xxvi+144. front. (diagr.). 8 pl. (col.). 8 figs. T. of c. index. New York.*

A popular guide to eastern land-birds with a short account of the species treated. The colored plates contain 424 small figures of birds, arranged as Residents, Winter Visitants, Spring Migrants, etc.

1921. The distribution of bird life in the Urubamba Valley of Peru. *8vo. pp. 138. front. (map fold.). 8 pl. 3 figs. (2 maps). T. of c. index. Washington.*

A report on the birds collected by the Yale University–National Geographic Society's Expeditions, accompanied by a distributional list of 380 species and subspecies. (Smithsonian Institution, U.S. Nat. Mus., Bulletin 117. Author's separate.)

1923. Warblers of North America. *8vo. N.Y.*

An *editio altera* of a well-known monograph.

1926. Bird Life; a guide to the study of our common birds. *New York.*

1927. Handbook of birds of eastern North America, with introductory chapters on the study of birds in nature. With full-page plates in colors and black and white by Louis Agassiz Fuertes, and text-cuts by Tappan Adney and Ernest Thompson Seton. Rev. ed. *8vo. pp. xxix+(1)+530. front. (col.). 23 pl. (col.). 136 figs. 1 map (fold. col.). T. of c. index. New York.*

The added material of this edition is in the introductory 116 pages, as compared with 31 in the original edition. The chapters on migration, song, nesting habits, color, structure and function, food, etc., have been thoroughly revised and brought up to date. The nomenclature is that of the 1910 edition of the A.O.U. Check-List. The first edition was issued in 1895, with several subsequent printings.

1929. My tropical air castle; nature studies in Panama. Illust. with drawings by Francis L. Jaques and from photographs by the author. *8vo. pp. xv+(1)+417. front. 46 pl. 30 figs. (1 map). T. of c. append. index. New York.*

This interesting account of the artificial island-sanctuary of Barro Colorado (diameter three miles) in the Panama Canal Zone records the presence of 230 bird species and examples of almost all the mammals of Central America except the jaguar. It truly is a naturalist's paradise, set aside by the Governor of the Zone and placed in charge of the U.S. Institute for Research in Tropical America, a branch of the National Research Council.

n.d. The Birds of the Vicinity of New York City. *N.Y.*

CHAPPIUS, P. A.

1927. Die Tierwelt der unterirdischen Gewässer. *8vo. pp. 4+175. illust. pl.* (Die Binnengewässer, vol. 3.) Bibliography, pp. 158–66. *Stuttgart.*

A useful, scientific monograph on animal life in subterranean waters.

CHARAS, Moyse (Moïse) [1618–98].

1670. Nouvelles expériences sur la Vipère, ou l'on verra une description exacte de toutes ses parties. *8vo. illust.* *Paris.*

The third edition (very rare) of the anatomy, etc., of the common viper.

CHARCOT, Jean Baptiste Étienne Auguste [1867–].

1906–24. Expédition antarctique française (1903–5). *8vo. pp. 37+486. 25 pl. 5 maps. text illust.* *Paris.*

The animal life of this the first scientific voyage on the 'Français' to the South Pole, under the supervision of Charcot, is described (in the Appendix) by J. Turquet.

1911–24. Deuxième Expédition antarctique Française (1908–10) (all pub.). *28 vols. 4to. many illust.* *Paris.*

This (second) expedition, under the scientific charge of Dr. Charcot was undertaken in the 'Pourquoi-Pas?'. The oceanographic results were published in *Documents scientifiques* that, so far, have filled 28 vols. The elaborate accounts furnished concern mostly invertebrate life, but antarctic birds are described by Louis Gain and the fishes by Louis Roule and others.

CHARDIN, Jean [1643–1713].

1927. Sir John Chardin's Travels in Persia, with an introduction by Sir Percy Sykes. *4to. pp. xxx +287+(2). 6 pl. (2 fold.). 4 figs. (1 col. vignette). T. of c.* *London.*

A reprint of the practically unknown two-volume English edition of 1720. The portion relating to the tame and wild birds will be found in chapter IX, pp. 174–82. Other editions appeared in 1721, 1724, 1735, and 1811. The present edition was limited to 975 copies on Japon Vellum, of which this copy is No. 448. The vignette on the title-page is from an old Persian tile.

CHARLESTON MUSEUM, CHARLESTON, S.C.

1905–22. Bulletin.

1923–*date*. Quarterly.

1910–*date*. Contributions.

CHARLES R. CONNER MUSEUM, PULLMAN, WASH.

1928. Occasional Papers, No. I.

CHARLESWORTH, Edward [1813–93].

1839–40. Natural-History Illustrations, etc.

CHARLETON, Walter [1619–1707].

1668. Onomasticon Zoicon, plerorumque Animalium, etc. *4to. pp. 18+309+34. 7 pl. text illust.* *London.*

This is the first edition of an important and celebrated classic which not only treats of living animals but contains discourses on their anatomy and paleontology. Several editions are also in the Osler and Dean Adams libraries.
In the present volume there is a type illustration of the Cretan Bee-eater, *Merops apiaster*, facing p. 87. The term bee-eater is here used for the first time in ornithological literature (cf. Newton, *Dict. Birds*).
Charleton was an Oxford graduate, physician to Charles I. He was an erudite scholar, widely read in the literature of natural history. His *Onomasticon* is largely a compilation from contemporary and earlier writers.

1671. Onomasticon zoicon, continens plerorumque animalium quadrupedum, serpentium, insectorum, avium & piscium differentias, eorumque nomina propria diversis linguis exposita; sui accedunt mantissa anatomica et nonnulla de variis fossilium generibus. *4to. pp. 18+309+34. 7 pl. text-figs.* *Londini.*

This is a reissue of the edition of 1668, with a new title-page and the first sheet reset.

1677. Gualteri Charletoni exercitationes de differentiis & nominibus animalium. Quibus accedunt mantissa anatomica, et quædam de variis fossilium generibus, deque differentiis & nominibus colorum. Ed. 2, duplo fere auctior priori, novisque iconibus ornata. *3 vols. (in 1). pp. 10+119; 106; 78+19. illust. 2 pl.* *Oxoniae.*

The frontispiece is an engraving of the Alchata or Pin-tailed Landgrouse; the central tail-feathers are shortened to accommodate the figure to the plate. The *Mantissa anatomica* includes observations on the anatomy of the 'Fishing Frog' (*Lophius piscatorius*), the Dog-fish, and the true Frog, with illustrations in the text.
This early and famous treatise is an enlarged (second) edition. Eight copper plates (three folding) of birds include many avian species of world distribution, e.g. British Song Birds, the Ibis, Crossbill, Hoopoe, etc. The frontispiece shows the Sheldonian Theatre in Oxford and pp. 64–119 (vol. I) describe the birds. There is also a copy in the Dean Adams Library.

CHARLEVOIX, Pierre François Xavier de [1682–1761].

1744. Histoire et Description générale de la Nouvelle France, etc. *3 vols. 4to.* *Paris.*

Including an account of some New World animals.

CHARNLEY, J. R.

1920. Hints on preserving and mounting birds. *12mo. pp. 39. front. (diagr.). T. of c.* *London.*

This little handbook has been designed as a guide for the amateur bird collector.

CHASEN, F. N. *See* Bucknill, J. A. S., 1927.

CHATHAM, John H.

1919. The passenger pigeon in Pennsylvania, &c., by John C. French . . . with chapters by . . . J. H. Chatham. *See* French, J. C.

CHAULIAC, Guy de.

1585. Chirurgia magna, etc. *See also* Caulico, Guido de.

CHAUTAUQUA SOCIETY OF HISTORY AND NATURAL SCIENCE.

Jamestown, N.Y.

1883–*date*. Proceedings.

CHECK-LIST OF NORTH AMERICAN BIRDS.

1895. 2nd ed. Published by the American Ornithologists' Union. *Washington.*

These authoritative Lists are published from time to time as the official catalogue of North American birds. *See* Amer. Ornithologists' Union.

CHEMNITZ. Naturwissenschaft. Gesellschaft zu Chemnitz.

1859–1930. Berichte und Abhandlungen.

CHENEY, Simeon Pease [1818–90]. (Cheney, John Vance, *ed.*)

[**1891**]. Wood notes wild, notations of bird music; collected and arranged with appendix, notes, bibliography, and general index by J. V. Cheney. *8vo. pp. xiv+261. front. (portr.). T. of c. append. bibliogr. index.* *Boston.*

This posthumous collection of New England bird-songs was begun when the author was in his sixty-seventh year, and was left unfinished when he died in 1890. It was completed and published by his son. The intention was to write a book of bird-songs for the young people of New England, many of whom he had taught the rudiments of vocal music. A second printing appeared in 1892.

CH'ÊN FANG-SHÊNG 陳芳生 [1644–1911].

1834. Pu huang k'ao 捕蝗考; History and prevention of the plague of locusts. *pp. 17.* (In Chao tai ts'ung shu 昭代叢書丙集, chüan 40.) *24·3 × 15·5 cm.*

From the Gest Library of Chinese Literature.

CHÊNG CH'IAO 鄭樵 [1108–66].

1896. T'ung chih 通志; A history, including material on all kinds of animals, fishes, insects, etc., chüan 76. *24 × 15·2 cm.*

From the Gest Library.

CH'ÊN HSI 陳僖 (18th cent.).

1834. Shih wu 識物; Notes on the peacocks, bats, beetles, snails, moths, mosquitoes, etc. *pp. 9.* (In Chao tai ts'ung shu 昭代叢書丁集, chüan 50.) *24·3 × 15·5 cm.* [G.]

CHÊNG JO-YUNG 鄭若庸 (16th cent.).

1576. Lei chien 類雋; An encyclopedia of 20 main divisions, comprising material on animals, birds, insects, fishes, etc., chüan 29–30. *29·5 × 18·3 cm.* Gest Library.

CH'ÊN JÊN-HSI 陳仁錫 [1579–1636].

1621–8. Ch'ien ch'io lei shu 潛確類書; A classfied encyclopedia, containing information on all kinds of animals, birds, fishes, worms, insects, etc., chüan 104–20. *25·8 × 16·5 cm.* Gest Library.

CH'ÊN MÊNG-LEI 陳夢雷 (18th cent.) and **others.**

1726. T'u shu chi ch'êng 圖書集成; The largest encyclopedia in print, including material on the animal kingdom, etc., with illustrations, Category IV, Section 19, chüan 1–192. Original edition; 2nd copy published 1885–8. *27·6 × 17·8; 19·7 × 13·3 cm.*

A famous and very extensive work, in the Gest Library of Chinese Literature.

CHENU, JEAN CHARLES [1808–79].

1845–6. Bibliothèque Conchyliologique. Ser. I–II, Tom. 1. *8vo.* *Paris.*

An important treatise on general conchology, with some references to vertebrate zoology.

1847. Leçons élémentaires d'histoire naturelle comprenant un aperçu sur toute la zoologie et un traité de conchyliologie, etc. *4to. pp. 88+284. 12 col. pl.* *Paris.*

(1850)–80. Encyclopédie d'Histoire Naturelle, etc. *22 vols.* Supplément, *9 vols. 4to. illust. Paris.*

Although issued at irregular intervals this encyclopedia contains a vast amount of scientific information supplied by the numerous collaborators that aided the editor during the years of its compilation. Among them, M. E. Desmarest contributed the sections on mammals, reptiles, and fishes, while M. O. des Murs wrote on birds.

1855–79. Encyclopédie d'histoire naturelle. Oiseaux. *4 vols.*

The present volumes form a separately bound treatise on Birds, written by M. O. des Murs for the important *Encyclopédie.*

******, DES MURS,** O., and **VERRAUX,** J.

1862. Leçons élémentaires sur l'histoire naturelle des oiseaux. *2 vols. 8vo. cuts in text and col. pl.* Tome I, *pp. 10+384. 340 hand-col. pl.* Tome II, *pp. 2+380. 64 (63+[1]) hand-col. pl. indexes.* *Paris.*

An unusually well-written text-book (with admirable illustrations) by three of the most painstaking ornithologists of the day.

1870. Ornithologie du Chasseau. *4to. 50 col. pl.* *Paris.*

A rare and elaborately illustrated work, probably based on material from the author's famous *Encyclopédie.* Not listed in the *Br. Mus. Cat.* (*Nat. Hist.*).

CH'ÊN YAO-WÊN 陳耀文 (16th cent.).

1595. T'ien chung chi 天中記; An encyclopedic work on all subjects, including the field of zoology, chüan 54–60. *27 × 16·6 cm.*

From the Gest Library.

CH'ÊN YÜAN-LUNG 陳元龍 [1650–1736].

1735. Ko chih ching yüan 格致鏡原; An encyclopedia of arts and sciences, giving data on birds, insects, land and aquatic animals. *23·7 × 15·2 cm.*

An important item in the Gest Chinese Library.

CHEPMELL, *Major* C. H.

1912. Through Shên-kan, etc. *See* CLARK, ROBERT STERLING.

CHERNEL, ISTVÁN [1865–1921].

1899. Magyar Ornithologie Die Vögel Ungarns. *2 vols. 51 pl.* *Budapest.*

Printed in both German and Hungarian.

1899. Magyarország madarai különös tekintettel gazdasagi jelentöségökre. *2 vols. in 3. 4to. illust. pl.* *Budapest.*

1902. Vom Schutze der Thiere insbesondere vom Schutze der nützlichen Vögel. *8vo. pp. 14. Köszeg.*

A pamphlet on the protection of birds in Middle Europe.

[*c.* **1916**]. Ornithologische Beiträge aus den Feldbriefen Nikolaus von Chernels; mitgeteilt von Stefan von Chernel. *8vo. pp. 331–2+(1)+526–7.*

Field-notes from Eastern Galicia sent by the author's son, who shortly afterwards fell in battle. Reprint, text in Hungarian and German.

1918. Nomenclator avium regni Hungariae. A Magyar birodalorn madarainak nevjegyzéke. *8vo. pp. 76.* (Opuscula ornithologica, vol. 33.) *Budapest.*

A systematic catalogue, with introduction, comments, and other text in Hungarian and German, of the birds of Hungary. The vernacular, German, and Zoological names of each are given.

CHERRIE, GEORGE KRUCK [1865–].

1916. The Museum of The Brooklyn Institute of Arts and Sciences. Science Bulletin, vol. 2, no. 6. A contribution to the ornithology of the Orinoco region. *4to. pp. 133–374.* *Brooklyn.*

Author's reprint of an annotated list of some 571 species and subspecies based on collections made by the writer and others, as well as with the addition of such species as have been reported by Berlepsch and Hartert in their 'Birds of the Orinoco Region' (*Novitates Zool.* ix, 1902).

CHERVILLE, GASPARD GEORGES PECOU (*Marquis*) DE [1821–].

n.d. Le gibier plume. Les oiseaux de la chasse; description; mœurs; acclimatation; chasse. Avec 34 planches hors texte et 64 illust. par E. de Liphart. Quatrième éd. *8vo. pp. xxii+(2)+194. front. (portr.). vignette. 34 pl. (4 eggs). 62 figs. T. of c.* *Paris.*

A literary companion to treatises on fowling and other works on bird hunting, with plates of the species involved, and their eggs. Vignettes in the text. Not in the *Br. Mus. Cat. (Nat. Hist.).*

CHESAPEAKE ZOOLOGICAL LABORATORY. *See* JOHNS HOPKINS UNIVERSITY.

CHESNAYE-DESBOIS, FRANÇOIS A. A. DE LA.

1759. Dictionnaire raisonné et universel des Animaux. *4 vols. 4to.* *Paris.*

This dictionary, not of much practical value to the modern student, is signed (as editor) 'Par M. D. L. C. D. B.'.

CHESSON, W. H., *ed.* *See* BRIGHTWEN, ELIZA, 1909.

CHESTER, GROSVENOR MUSEUM.

1895. Twenty-five photographs by G. W. Webster of the life-history groups of birds in the Grosvenor Museum, Chester. *See* WEBSTER, G. W.

CHESTER SOCIETY OF NATURAL SCIENCE. *Chester, Eng.*

1871–*date.* Annual Report.

1878?–1907? Proceedings.

CHEVALIER, AUGUSTE [1873–].

1907. Mission Chari—Lake Tchad, 1902–4 . . . Récit du Voyage, etc. *8vo. pp. 15+776. 9 pl. 6 maps. illust. in text.* *Paris.*

In the Appendix considerable space is devoted to natural history of which only the fishes are described (of the vertebrates), by J. Pellegrin.

CHEVERLANGE, E.

Paintings of the birds of Fiji. *See* ORIGINAL DRAWINGS, BELCHER, W. J., 1917–30.

CHIAPELLA, C.

?1871. Manuel de l'oiseleur et de l'oiselier.

CHICAGO ACADEMY OF SCIENCES.

1867–70. Transactions. Vols. 1 and 2 (all pub.).

1896–*date.* Bulletin of Geological and Natural History Survey.

1930. Program of Activities. *8vo.* This periodical is largely devoted to bird life, No. 4, Oct. 1930, being entirely so.

CHICAGO FIELD. *See* AMERICAN FIELD.

CHICAGO. FIELD MUSEUM OF NATURAL HISTORY. *See* FIELD MUSEUM OF NATURAL HISTORY, CHICAGO.

CHICHESTER, C. D.

1905. American Birds . . . and how to know them. *New York.*

CHI HUANG 稽璜 [1710–94] and **others.**

1882. Huang ch'ao t'ung chih 皇朝通志; A history of the Manchu Dynasty (1644–1911), containing material on all kinds of animals, birds, fishes, insects, etc., chüan 124 and chüan 126. *24×15·2 cm.*

From the Gest Library of Chinese Literature.

CHĪKHACHEV, PETR ALEKSANDROVĪCH [1808–90].

1853–69. Asie Mineure; description physique de cette contrée, par P. de Tchihatcheff. *8 vols. in 6. atlas, 3 vols. 36½×29 cm. illust. maps. tab. Paris.*

There is an excellent plate by F. Bocourt of a leopard killed in the environs of Smyrna. Other plates illustrate the head of the Wild Goat (*Capra aegagrus*), the Angora Goat, and Anatolian Sheep. There are no bird plates. The principal results are in the fields of palaeontology and botany.

CHILDREY, JOSHUA [1623–70].

1661. Britannia Baconica: or, The natural rarities of England, Scotland, & Wales. According as they are to be found in every shire. *8vo. pp. 30+184.* *London.*

A curious book in which birds are occasionally mentioned as amongst some of the rarities of the various 'Shires' described.

CHILE. UNIVERSIDAD. *Santiago.*

1843–1922. Anales. Series 1.

1923–*date.* Anales. Series 2.

CHILTON, CHAS., *ed.* (WAITE, EDGAR R.)

1909. The subantarctic islands of New Zealand. Reports on the geo-physics, geology, zoology, and botany of the islands lying to the south of New Zealand, based mainly on observations and collections made during an expedition in the government steamer 'Hinemoa' (Captain J. Bollons) in November, 1907. Pub. by the Philosophical institute of Canterbury. *2 vols. 4to. Wellington.*

The ornithological report of this expedition by Edgar R. Waite is contained in vol. II, article XXV, pp. 551–84, with 18 illustrations, figs. 6–23, in part colored.

CHIN HSIU WAN HUA KU, etc.

?1500. *See* ANONYMOUS.

CHINA BRANCH OF ROYAL ASIATIC SOCIETY OF GREAT BRITAIN AND IRELAND. *See* ROYAL ASIATIC SOCIETY—CHINA BRANCH.

CHISHOLM, ALEC H.

[**1922**]. Mateship with birds; with an introd. by C. J. Dennis. *8vo. pp. 196. numerous illust. T. of c. index. list of scientific names.* Presentation copy from author with autograph. *Melbourne.*

A sympathetic sketch of human relations to bird life.

1929. Birds and Green Places. *8vo. pp. 224. 2 col. pl. numerous photos. index. London and Toronto.*

An unusually well-written, popular work on certain Australian birds by a recognized authority on the subject. A list of the scientific names of the avifauna mentioned is given on pp. 217–19.

CHI YÜN 紀的 [1724–1805] and **others.**

1886. Hsü t'ung chih 續通志; A work of history, embracing material on the animals, fishes, insects, etc., chüan 178–80. *24×15·2 cm.*

From the Gest Library of Chinese Literature.

CHOLMONDELEY-PENNELL, HENRY [1837–1913].

1886. The sporting Fish of Great Britain with notes on ichthyology. *8vo. pp. 8+185. 16 col. pl. figs. in text.* *London.*

A scientific treatise beautifully 'illustrated by 16 lithographs in gold, silver, and colours'.

CHOLODKOWSKY, N. and **SSILANTJEW.**
1901. Die Vogel Europas (in Russian). *48 col. pl.* (Wanting.) *Petersburg.*

CHOULANT, L.
1858. Graphische Incunabeln für Naturgeschichte und Medizin. Geschichte und Bibliographie der ersten naturhistorischen und medizinischen Drucke des XV. und XVI. Jahrhunderts, welche mit illustrierenden Abbildungen versehen sind. *Leipzig.*

An indispensable reference treatise for fifteenth- and sixteenth-century works on natural history. A very good reprint of this rather rare book was published at Munich in 1924.

CHRISTY, CUTHBERT [1863–].
1924. Big game and pygmies; experiences of a naturalist in Central African forests in quest of the okapi . . . with an introductory chapter by Sir Harry H. Johnston. *8vo. pp. xxxi+(1)+325. front. 58 pl. (122 figs.). 1 map (col. fold.). T. of c. 2 append. index. London.*

This volume deals mainly with the Ituri Forest region of the Congo, and is largely based upon the last and longest of the author's expeditions to that Forest, undertaken on behalf of the Belgian Government during the years 1912, 1913, and 1914. The forest birds are described in chapter XXV, pp. 245–53.

CHRISTY, ROBERT MILLER. *See* ESSEX FIELD CLUB, 1885–1910.

1890. The birds of Essex; a contribution to the natural history of the county. (Essex field club. Special memoirs, vol. 2.) *8vo. pp. viii+302. front. 2 pl. 162 figs. T. of c. 2 append. index. Chelmsford.*

The result of over 15 years collecting information and materials regarding the birds of the County. Tables of the arrival of the Summer Migrants, notices of Essex ornithologists and chief Essex bird collections are given, as well as notes on wild-fowl decoys and wild-fowling in the County.

1891. A catalogue of local lists of British birds arranged under counties. From *The Zoologist*, with numerous additions. With a new Introduction and title-page. *8vo. pp. 42. London.*

The present copy is from the library of H. Kirke Swann with his notes and corrections.

CHUBB, CHARLES [1851–1924].
1912–17. The birds of South America. *See* BRABOURNE, W. W. K. and CHUBB, C.

1916–21. The birds of British Guiana, based on the collection of Frederick Vavasour McConnell. Preface by Mrs. F. V. McConnell. *2 vols. 8vo.* Vol. I, *pp. liii+528+(1). front. (portr.). 10 pl. (col. birds). 16 pl. 1 map (fold.). 95 figs. bibliogr. addend. 2 indexes.* Vol. II, *pp. xcvi+615. 10 pl. (col. birds). 8 pl. addend. 2 indexes. London.*

An account of the birds of British Guiana with full descriptions of plumage, habits, nidification, and range, etc. Vol. I contains the preface by Mrs. McConnell, p. 3, and also apparently the itinerary of McConnell's first Roraima expedition, pp. v–xxxv, whilst vol. II contains the itinerary of the second Roraima expedition, written by John J. Quelch, who accompanied McConnell on that occasion in 1898. Two hundred and fifty copies of the work were printed of which the present one is No. 74.

CH'U JÊN-HUO 褚人穫 (18th cent.).
1834. Hsü hsieh p'u 續蟹譜; A short treatise on crabs. *pp. 8.* (In Chao tai ts'ung shu 昭代叢書丙集 chüan 50.) *24·3×15·5 cm.*

CHU MU 祝穆 (13th cent.).
1604. Shih wên lei chü 事文類聚; An encyclopedia containing historical incidents and literary writings on animals, birds, insects, fishes, etc., hou chi 後集 (2nd part) chüan 33–50. *24·5×16·8 cm.*

From the Gest Library of Chinese Literature.

CHURCH, JOHN.
[1794]–1805. A cabinet of Quadrupeds . . . with drawings by J. Ibbetson. *2 vols. folio. illust. London.*

The Blacker Library has a fine large paper copy in which the engravings (by J. Tookey) of Ibbetson's work are well reproduced. This treatise, originally issued in parts, has considerable historical and scientific interest.

CHURCHILL, A. BAILEY-. *See* BAILEY-CHURCHILL, A.

CHURCHILL, ABBY PIERCE.
1905. Birds in literature. *8vo. pp. (6)+9–186. bibliogr. Worcester, Mass.*

This useful work is rare, not in *Br. Mus. Cat.* (*Nat. Hist.*), having been printed privately. It is a compilation of selections from the writings of most of the best-known American authors and poets who have taken birds as their subject.

CHURCHILL, LLEWELLA PIERCE.
1902. Samoa'uma where life is different. *8vo. pp. (12)+13–295. front. (portr.). 23 pl. T. of c. New York.*

The words of the title mean 'All Samoa'. There are a few references to birds, among them the tiny island parrot, no larger than an English sparrow (pp. 274–5), the majestic frigate bird, p. 280, etc.

CHUR. (Schweiz.) Naturforschende Gesellschaft. Graubündens. (Founded 1826.)
1826–1930. Jahresbericht.

A new series of the *Jahresbericht* began in 1853, and there is an index for every 10 vols.

CINCINNATI SOCIETY OF NATURAL HISTORY.
1878–1917. Journal.

1876. Proceedings. Index in first 10 vols. of the Journal.

CIRCULAR OF THE CALIFORNIA ORNITHOLOGICAL CLUB. (Founded 1889.) *San Francisco, Cal.*
1889. Circular No. 1. *pp. 2* (all issued).

Contains directions for collecting Birds' Stomachs. As supplement, Constitution and by-laws of the Club.

CLAPPERTON, HUGH [1788–1827] and **DENHAM,** *Maj.* D.
1826. Narrative of travels and discoveries in Northern and Central Africa, &c. *See* DENHAM, D. and CLAPPERTON, HUGH.

CLARENDON PRESS SERIES.
1870. Forms of animal life. *See* ROLLESTON, G.

CLARK, AUSTIN HOBART [1880–].
1926. Animals of land and sea. *8vo. pp. xxxiv+276. 10 pl. 740 figs. T. of c. index. London.*

An attempt to present the animal world as a biologic unit. Four plates contain 12 figures of birds. The book forms one of the volumes of the 'Library of Modern Sciences'.

CLARK, E. B.

1901. Birds of lakeside and prairie. *Chicago, New York.*

CLARK, G. A. *See* UNITED STATES. FISHERY REPORTS, 1898–9.

CLARK, HUBERT LYMAN [1870–].

1887. The birds of Amherst and vicinity, including nearly the whole of Hampshire County, Mass. *8vo. pp. 55. 2 indexes. Amherst, Mass.*

An annotated list of 177 species. In this copy are inserted two letters dated April 21 and 28, 1887, from the author to Dr. C. Hart Merriam, on subjects connected with the work.

CLARK, J. W. *See* ROYAL SOCIETY OF LONDON, 1879.

CLARK, ROBERT STERLING; **SOWERBY,** ARTHUR DE C., and **CHEPMELL,** C. H.

1912. Through Shên-kan; the account of the Clark expedition in north China, 1908–9. *8vo. pp. 8+247. front. (map col.). 58 pl. (5 col.). map (col.). T. of c. 6 append. index. London.*

This expedition covered a period of 18 months.

CLARK, *Rev.* WM.

1856–8. Handbook of Zoology. *See* HOEVEN, JEAN VAN DER.

CLARKE, BENJAMIN [1813–90].

1841. *See* BUFFON, G. L.

1879. A New Arrangement of the Classes of Zoology, etc. 1st ed. *4to. London.*

1881. A new arrangement of the classes of zoology, founded on the position of the oviducts and ovaries, including a new mode of arranging the mammalia. 2nd ed., with additions. *4to. pp. (2)+3–24. 2 tab. addend. London.*

The title of this second edition indicates the scope of the work. Two folding tables, with emendations of table I, render the new arrangement of the classes of zoology more clear.

CLARKE, R. H.

1898. The bird plague; or, Septic fever in cage birds. Rev. and enl. *16mo. pp. 22+(2). London.*

A lecture delivered before the London and Provincial Ornithological Society on October 12, 1897, illustrated by numerous lantern slides.

CLARKE, ROBERT.

1843. Sierra Leone, with the Natural History of the Colony. *8vo. pp. iv+178. 10 pl. 1 map (col.). London.*

CLARKE, WILLIAM EAGLE [1853–] and **ROEBUCK,** W. D.

1881. A handbook of the vertebrate fauna of Yorkshire. Being a Catalogue of British Mammals, Birds, Reptiles, Amphibians, and Fishes found in the County. *8vo. pp. xlviii+149. bibliogr. append. index. London.*

There is an annotated list (pp. 17–89) in which 380 species of birds are listed.

****** and others.**

1880–9. Report on the migration of birds . . . 1884(–86). Rept. 6–8. *See* BROWN, J. A. HARVIE-.

1912. Studies in bird migration. With maps, weather charts, and other illustrations. *2 vols. 8vo.* Vol. I, *pp. xvi+323. front. 8 pl. (1 fold.). 1 fig. T. of c.* Vol. II, *pp. vii+(1)+346. front. 15 pl. 1 fig. T. of c. index. London.*

A series of special investigations which a residence of 47 weeks in lighthouses and in a lightship, as well as 14 weeks spent on the remote islands of St. Kilda and Ushant, enabled the author to carry out.

1923. Guide to the birds of Europe and North Africa. *See* RAMSAY, R. G. W.

1923. Side lights on birds. *See* HORSFIELD, H. K.

1927. Manual of British Birds. *See* SAUNDERS, HOWARD.

CLAUDY, CARL HARRY [1879–].

[1924]. Tell-me-why stories about animals. *8vo. pp. (6)+7–302+(1). front. (col.). 3 pl. (col.). T. of c. London.*

CLAUS, CARL FRIEDRICH WILHELM [1835–99].

1863. Ueber die Grenze des thierischen und pflanzlichen Lebens. *4to. pp. 2+23. Leipzig.*

One of the early and best known tractates of this famous naturalist.

1866–8. Grundzüge der Zoologie. *8vo. pp. 12+1170. index. Marburg.*

This well-known handbook has passed through several German (under the title *Lehrbuch der Zoologie*), French, and English editions. It is highly praised by teachers of zoology.

1884. Traité de Zoologie. Tr. by Moquin-Tandon from the 3rd German Edition. *2 vols.*

1884. Traité de zoologie. 2e éd. française tr. de l'allemand sur la 4e éd. entièrement refondue et considérablement aug. par Gaston Moquin-Tandon. *4to. pp. 16+1566. illust. Paris.*

Another French edition of his *Lehrbuch der Zoologie.*

1885. Elementary text-book of zoology. Tr. and ed. by Adam Sedgwick. *2 vols. 8vo.* Vol. I, *pp. 615. 491 figs. T. of c. index.* Vol. II, *pp. 352. 706 figs. T. of c. index. London.*

An English translation of Claus' *Lehrbuch der Zoologie.*

1885. Lehrbuch der Zoologie. 3. umgearb. Aufl. Mit 889 Holzschnitten. *8vo. pp. 12+828. Marburg.*

An abridgment of the author's *Grundzüge der Zoologie,* 1st ed., 1868.

CLAUSEN, ROY ELWOOD [1891–] and **BABCOCK,** E. B.

1918. Genetics in relation to agriculture. *See* BABCOCK, E. B.

A second edition, with few changes, was published in 1927.

CLAVIGERO, FRANCISCO JAVIER [1731–87].

1787. The History of Mexico, etc. *2 vols. 4to. London.*

This treatise is an amended translation of the author's Spanish works, most of them published in Mexico City.

CLELAND, JOHN BURTON [1835–1925].

? 1911. The classification of the vertebrata. *8vo. pp. 2+11. London.*

1918. The food of Australian birds. An investigation into the character of the stomach and crop contents. *8vo. pp. 112. T. of c. 3 append.* Author's reprint. *Sidney.*

CLENNELL, L. *See* ANONYMOUS, 1815. Recreations in Natural History.

CLERMONT, THOMAS FORTESCUE, *Baron* [1815–87].

1859. A guide to the quadrupeds and reptiles of Europe; with descriptions of all the species. *12mo. pp. 8+277. London.*
Bibliography, pp. 7–8. *See also* FORTESCUE, THOMAS.

CLEVELAND ACADEMY OF NATURAL SCIENCES, CLEVELAND, OHIO.

1845–59. Proceedings.

CLEVELAND BIRD LOVERS' ASSOCIATION. *See* BLUE BIRD.

CLEVELAND MUSEUM OF NATURAL HISTORY.

1922–*date.* Bulletin.

1922–*date.* Pocket Natural History Series.

1928–*date*? Scientific Publications.

CLIFFORD, WILLIAM H.

1902. Against the destruction of white herons and red ibises on the lower Amazon . . . by Emil A. Goeldi . . . Translated from the Portuguese into English by W. H. Clifford. *See* GOELDI, EMIL A.

CLIFTON COLLEGE SCIENTIFIC SOCIETY.

1869–87. Transactions. (Wanting.)

CLODD, EDWARD. *See* BATES, H. W., 1892.

CLODIUS, DAVID. *See* BOCHART, SAMUEL, 1675.

CLODIUS, G. and **WÜSTNEI,** C.

1900. Die Vögel der Grossherzogthümer Mecklenburg, &c. *See also* WÜSTNEI, C.

CLUBB, JOSEPH ALBERT.

1920. Handbook and guide to the British birds on exhibition in the Lord Derby natural history museum, Liverpool. 2nd ed. *8vo. pp. 18+73. 12 pl. index. St. Annes-on-the-Sea.*
The first edition of this useful catalogue was issued in 1914, since which the exhibits have been greatly increased.

CLUB VAN NEDERLANDSCHE VOGELKUNDIGEN.

1928–30. Orgaan der Club van Nederlandsche Vogelkundigen. *8vo. illust. pl.* Continued from their Jaarbericht (q.v.). *Zutphen.*

CLUSIUS, CAROLUS [1526–1609] (LÉCLUSE, C. DE).

1601. C. Clusii . . . Rariorum Plantarum Historia, etc. *folio. pp. 364. illust.* Brunet 112. *See also* LÉCLUSE, C. DE. *Antverpiae.*
There are a few references to animal life in this treatise. Several of the works of this well-known naturalist are in the Osler Library.

1605. C. Clusii . . . Exoticorum libri decem; quibus Animalium, Plantarum . . . Item P. Belloni observationes, eodem C. Clusio interprete, etc. *folio. pp. 378.* Brunet 112. *Leyden.*

1611. Curae posteriores . . . aliquot animalium novae Descriptiones . . . *folio.* (*Antwerp.*)
A good and short account of Clusius' life and works is to be found on p. 214 of the *Bib. Osleriana*: 'Charles de L'Escluse, after studying at several Universities translated and published the narratives of travelers in many lands, among them accounts of animals, plants, flowers, drugs, etc. discovered by early Spanish and Portuguese explorers. He records many curious and interesting facts.'

COCKBURN-HOOD, THOMAS HOOD [–1889].

[**1872**]. Remarks upon the footprints of Moas at Poverty Bay and upon their recent extinction. *8vo. pp. 14.* [*Waikato.*]
An interesting account of specimens obtained by the author. *See also* HOOD, THOMAS.

COCKERELL, THEODORE DRU ALISON [1866–].

1920. Zoology, a text book for colleges and universities. *8vo. pp. xi+(1)+558. 211 figs. T. of c. index. Yonkers-on-Hudson, N.Y.*
The first volume of a series of college science texts, to be given preferably in the sophomore year, and designed for the use of those who have had little or no previous training in the subject. References to birds on pp. 373–95 with 19 illustrations, figs. nos. 150–68.

COCKS, ALFRED HENEAGE.

1894. Bird life in arctic Norway, &c. *See* COLLETT, R.

COCTEAU, J. T. *See* SAGRA, RAMON DE LA, 1839–61.

COIMBRA, PORTUGAL. Museu Zoológico.

1924–*date.* Memórias e Estudios.

COLCORD, WILLARD ALLEN [1860–], *ed.*

[**1924**]. Animal land, containing 300 delightful, entertaining, instructive stories about animals, birds and insects, for children, mothers and teachers. *8vo. pp. (22)+439. 16 pl. T. of c. index. Philadelphia.*

COLE, FRANCIS J. [1872–].

1913. The Early Days of Comparative Anatomy. *8vo. Liverpool.*

**** and **EALES,** NELLIE B.

[**1917**]. The History of Comparative Anatomy. Pt. 1 (all pub.). *illust. London.*
Both these titles are from the Osler Library.

COLE, ROBERT J.

[**1922**]. Birds, with pictures from J. J. Audobon's (*sic*) 'Birds of America'. *See* BURROUGHS, J.

COLEBY, H.

1876–81. A catalogue of British and foreign eggs; with some account of the habits and nidification of the birds. *folio. pp. 889. 74 pl.* (*col., 7 not numbered*). *index.* Original manuscript.
A unique manuscript catalogue beautifully written in ink on foolscap paper, with excellent original water-color paintings of eggs of many of the species enumerated. The catalogue comprises the following sections: British and European Birds, pp. 1–691; Sundry European Species which are not now British, pp. 693–730e; Some of the Birds of North America and Jamaica, pp. 731–889.

1878. A register of eggs [and skins] of British and European birds, to which are added a few African and American species. *8vo. pp. 54+301. index.* Original manuscript. [*Bath.*]
Unique manuscript register of the eggs and skins in the collection of Henry Coleby of Bath, apportioned as follows: viz. Eggs of British Birds, pp. 1–135; European Eggs which are not British, pp. 137–44; Asiatic eggs (East Indies), pp. 145–7; South African Eggs, pp. 149–50; Australian Eggs, p. 151; North American Eggs (Canadian, from W. E. Saunders), pp. 153–68; United States and West Indies, 169–80. Skins of British and Foreign Birds, pp. 181–203; Notes on all of the above, and general remarks on the seasons of 1878–82.

COLEMAN, ROBERT H. *See* DONALDSON, ALFRED L., 1921.

COLERIDGE, GILBERT JAMES DUKE [1859–].

1923. Pan's people, the lure of little beasts. *8vo. pp. [x]+183. T. of c. London.*

COLLAERT, ADRIAEN (COLLARDUS, ADRIANUS) (d. 1618). *Artist-illustrator.*

[?**1610**]. Animalium quadrupedum omnis generis verae . . . in aes incisae et editae ab Adriano Collardo. *8vo. 20 eng. pl. including title. n.p. no text.*

A rare example of the many small 'albums' of animal pictures published by this well-known Dutch artist. The engraved title represents Orpheus charming and taming the birds and beasts of the forest.

[?**1610**]. Avium vivae icones Acurantissima imitatio earum quoe incisae et edite sunt . . . (Pub. by) G. B. Rossi, Piazza Nauona. *16 cop. pl. incl. engraved title-page.*

One of the artist's earliest and best albums of bird life. Evidently first states of the plate and before all letters (except the systematic names of the birds) a very clean, clear copy. Very rare in this condition.

[?**1610**]. Avium vivae icones, in aes incisae & editae ab Adriano Collardo. *12mo. pp. 1+15. Engraved title.* Date from *Cat. Br. Mus. (Nat. Hist.).* [*Antwerp.*]

A rare and curious collection of copper-plate engravings of birds by an early Dutch engraver. The copy in hand has one more plate than is mentioned by the collator of Bryan's *Biog. Dict. of Painters and Engravers*, but the same number (16) as in the British Museum copy. Duplicate set of these pictures are hung in the E.S.W. Library of Ornithology.

[?**1612**]. Avium Vivae Icones, in aes incisae & editae ab . . . *8vo. 12 pl., including engraved title-page. n.p. unpaged.*

Most of the plates in this small album of bird portraits are numbered and have legends of systematic names. Some of these pictured booklets by Collaert are quite rare; others fairly common. The collection in hand appears to belong to the former category.

COLLARDUS, ADRIANUS. *See* COLLAERT, ADRIAEN.

COLLECTOR, THE. *See* YOUNG COLLECTOR, 1881–2.

COLLECTOR'S GUIDE FOR BIRDS, SKINS AND EGGS. *See* BR. MUS. NAT. HIST., 1921.

(THE) COLLECTORS' MONTHLY.
8vo. *Danielsonville, Conn.*

A monthly Magazine devoted to Ornithology, Oology, and Natural History. Charles H. Prince, Editor and Publisher.
Vol. I, Nos. 1–2, Nov.–Dec. 1890, *pp. 1–8.*
Vol. II, Nos. 1–12 (6 and 7 double), Jan.–Dec. 1891, *pp. 9–76.*
Vol. III, Nos. 1–5, Jan.–May 1892, *pp. 1–40.*
W. W. Worthington's *Notes on the Birds of Long Island* ran through the entire series.
Suspended, the unexpired subscriptions filled by the *Oologists' Journal.*

COLLETT, ANTHONY KEELING [1877–].
1897. The Heart of a Bird. *8vo. pp. 296. illust.* *London.*

The first edition of a sensibly written and popular work.

1906. A handbook of British inland birds; with coloured and outline plates of eggs, by Eric Parker. *8vo. pp. xx+289. pl. I–X. front. T. of c. index.* *London.*

The plates, plain and colored, illustrate the oölogy of Great Britain. The treatise is a useful guide for the amateur student of local ornithology. It is not listed in the *Cat. Br. Mus. (Nat. Hist.).*

[**1927**]. The heart of a bird. *8vo. pp. vi+(2)+287. front. 7 pl. T. of c. index.* *London.*

One of several editions of this book, the substance of which had already appeared as articles in *The Times* and *The Nineteenth Century and After.* The author in following up the lives of the birds, month by month, gives one a very good insight into the real 'heart of a bird'. The book should be especially perused by all highly sentimental people, and those who imagine the lives and feelings, etc., of a bird are akin to their own.

******** and **THOMAS,** W. B.
n.d. Birds through the year. *See* THOMAS, W. B.

COLLETT, ROBERT [1842–1913].
1864. Oversigt af Christiania omegns Ornithologiske Fauna. *8vo. pp. 230.* *Christiania.*

This treatise on Norwegian ornithology was written by a well-known naturalist, a most voluminous contributor to the literature of zoology, local and general.

1875. Norges fiske, med Bemærkninger om deres Udbredelse. *8vo. pp. 2+240. pl. map.* *Christiania.*

1877. Om et Par for Norges Fauna nye Fuglearter. *8vo. pp. 4.* *Christiania.*

1877–81. [Birds of Norway.] . . . Norges Fuglefauna, etc. *6 excerpts in 1 vol. 8vo. 3 pl. (fold.). 2 figs.* *Christiania.*

Short reports on the bird fauna of Norway, including records of species new to Norway and an illustrated article on the structure of the skull and ear-opening of the Strigidae. The present copy is from the Godman Library with book-plate.

1881. Craniets af Øreaabningernes Bygning hos de nordeuropæiske Arter af Familien Strigidae. *8vo. pp. 38. pl.* (in his *Birds of Norway*, 1877–81). *Christiania.*

1881. *Oreocincla varia* (Pall.) og *Aegialitis alexandrinus* (Lin.), nye for Norges Fauna. *8vo. pp. 6* (in his *Birds of Norway*, 1877–81). *Christiania.*

1892–8. On a collection of birds from Tongoa, New Hebrides (*Christiania Videnskabs-Selskabs Forhandlinger*, 1892, no. 13), and On a Second Collection (1898, no. 6). *8vo. pp. 11+7.* *Christiania.*

Notes on two small collections of birds, 20 and 7, made in 1890 and 1897.

1894. Bird life in Arctic Norway, a popular brochure; tr. from the Norwegian by A. H. Cocks. *8vo. pp. xi+42+x. 3 pl.* *London.*

A portion of the above (in German) was read before the Second Intern. Congress of Ornithology at Budapest in 1891. Later, a condensed edition of the whole brochure was published in Norwegian. The present volume, with an appendix—'A List of the Birds of Norway arranged according to the Rules of the B.O.U.'—was taken by the translator.

1900. *See* NANSEN, F.

1900–6. The Norwegian north polar expedition, 1893–96. Scientific results. *See* NANSEN, F.

1906. Hybrids among Norwegian birds, and their diagnoses. (*Christiania Videnskabs-Selskabs Forhandlinger*, 1905, no. 11). *8vo. pp. 26.* Author's reprint. *Christiania.*

On certain hybrids of the families *Turdidae* and *Tetraonidae.*

COLLIER, J. H.
1871. Manual of cage birds, American and foreign, with directions for breeding, rearing, and keeping them. *16mo. pp. 124. T. of c. index.* *New York.*

A rare, semi-popular treatise, not listed in the *Cat. Br. Mus. (Nat. Hist.).*

COLLIN, ALBERT.
1929–*date.* Index Ornithologicus sive Nomenclator Avium tum viventium tum fossilum. Anno I, No. 1. *8vo. pp. 2+18.* *Kotka, Finland.*

The preface to this valuable serial reads: A bi-monthly ornithological Journal devoted chiefly to the successive development of an Avian Nomenclator according to the present system.

COLLIN, G. D. *See* THUNBERG, C. P., 1822–3.

COLLIN, JONAS SIGISMUND [1840–1913].

1882. Skildringer af Naturvidenskaberne. *Kjøbenhavn.*

1884. Om Limfjordens Tidligere og nuværende marine Fauna med særligt Hensyn til Bløddyrfaunaen. *8vo. pp. 168+2.* *Kjøbenhavn.*

COLLINGE, WALTER EDWARD [1867–].

1913. The food of some British wild birds: a study in economic ornithology. *8vo. pp. viii+109. T. of c. bibliogr. index.* *London.*

The conclusions arrived at are the result of eight years' work, based on the examination of the stomach contents of upwards of 3,000 adult birds, and 300 nestlings, representing 29 species of British birds. Five of these proved to be distinctly injurious, eight were too plentiful and consequently injurious, whilst the remaining 16 were found to be beneficial.

1924–7. The food of some British wild birds. 2nd ed. *8vo. pp. xvi+(6)+427. front. (portr.). 8 pl. 47 figs. (diagr.). T. of c. 6 append. bibliogr. index.* *York.*

The present edition was issued in 9 pts.

COLLINGWOOD, CUTHBERT [1826–96].

1859. The Fauna of Blackheath and its vicinity. Part I. Vertebrate Animals. (Greenwich Natural History Club.) *8vo.* *London.*

1861. Contributions to British Ornithology. *8vo. pp. 26.* (Bird Notes.)

1868. Rambles of a Naturalist . . . China Sea. *8vo. pp. xiii+445. 3 pl. text illust.* (Wanting.) *London.*

COLLINS, ARCHIE FREDERICK [1869–] and **COLLINS,** V. D.

1920. The wonders of natural history; a comprehensive account of man in the making and of prehistoric and present day animals. *8vo. pp. xv+204. front. (col.). 80 pl. T. of c. index. New York.*

Included in the above is an interesting chapter on prehistoric birds; also one on birds of to-day, including a picture of the now extinct Dodo. Rare; not in the *Cat. Br. Mus. (Nat. Hist.).*

COLLINS, CHARLES [d. 1744].

n.d. [Plates of birds.] Printed for Thos. Bowles in St. Paul's Church Yard. *12 pl. (col.) in portfolio.* [*London.*]

Examples of the work of Charles Collins, an eighteenth-century illustrator. The 12 colored plates (115 figs.) represent 58 species of British birds. The size of the plates is 18×14 in.

n.d. Drawings of birds and beasts. *See* ORIGINAL DRAWINGS.

COLLINS, DAVID [1756–1810].

1798–1802. An account of the English colony in New South Wales. *2 vols. 4to. fronts. illust. pl. (partly col.). maps.* *London.*

Facing p. 92 in the second volume is a colored plate of the Lyre Bird, the first published illustration of it. It was thought to be a 'variety of the Bird of Paradise'.

COLLINS, GEORGE EDWARD.

1911. The natural history and antiquities of Selborne. *See* WHITE, GILBERT.

COLLINS, SAMUEL [1618–1710].

1685. A Systeme of [Comp.] Anatomy, treating of the Body of Man, Beasts, Birds, Fish, Insects, and Plants. Pub. 'In the Savoy'. *2 vols. folio. 74 pl.*

A rare and early treatise on comparative anatomy.

COLLINS, VIRGIL DEWEY.

1920. The wonders of natural history, &c. *See also* COLLINS, A. F.

COLMAR. Société d'histoire naturelle de Colmar.

1860–88. Bulletin, vols. 1–29.

1883–5. Supplement (all pub.).

COLOMBO MUSEUM. *Colombo, Ceylon.*

1914–*date*. Memoirs. *See also* CEYLON JOURNAL OF SCIENCE—SPOLIA ZEYLANICA.

1912–14. Reports.

COLORADO COLLEGE, COLORADO SPRINGS.

1904–30. Science Series, including Nos. 1–29, Colorado College Studies.

COLORADO MAGAZINE.

1923–*date*. (Including the forerunner, Bulletin of the Colorado State Historical and Natural History Society.)

COLORADO MUSEUM OF NATURAL HISTORY. *Denver.*

1915–*date*. Proceedings.

COLORADO UNIVERSITY.

1913. Bulletin. Natural History Series.

1902–*date*. Studies.

COLQUHOUN, JOHN [1805–85].

1856–74. Lectures on natural history. *4 vols. 8vo.* *Edinburgh.*

Delivered before various literary Societies and entitled 'Sport'; Instinct and Reason; The Ferae Naturae of the British Islands; and the Natural History of the British Islands.

COLTON, BUEL PRESTON [1852–1927].

[**1903**]. Zoölogy, descriptive and practical. Part I, Descriptive. Part II, Practical. *2 vols. in 1. 8vo.* I, *pp. x+375+(1). front. 201 figs. T. of c. index.* II, *pp. xvii+(1)+204. 2 figs. T. of c. index.* *Toronto.*

The principal change from the earlier edition of 1886 consists in the addition of directions for field study (part II) and for the laboratory study of the live animals.

1906–8. Zoology, descriptive and practical. *Toronto.*

A reprint of the 1903 edition. An additional printing, published in Boston, appeared in 1908.

COMMENTARII ACADEMIAE SCIENTIARUM IMPERIALIS PETROPOLITANAE.

1728–38. Tom. I–V. (Ad annos 1726–36.) *4to.* Title also in French. *Petropol.*

COMMENTARII DE REBUS IN SCIENTIA NATURALI ET MEDICINA GESTIS.

1752–98. *Leipzig.*

COMMONWEALTH OF MASSACHUSETTS. Department of Agriculture.

1918–*date*. Items of Interest. (I–LXXXIII. 1918–28.) Edited by Edward Howe Forbush.

COMPANYO, Louis [1781–1871].
1861–4. Histoire naturelle du département des Pyrénées-Orientales. *3 vols. 8vo. illust.* *Perpignan.*
A well-written description, from the natural history viewpoint, of south-eastern France. The Animal Kingdom is described in vol. III.

COMPARATIVE OOLOGIST, THE; and Journal of the International Museum of Comparative Zoology.
1924–7. Edited by Wm. Leon Dawson. Vol. 1, No. 1, May 1924. Covers, Semi-Annual. Illustrated. *pp. 58. Santa Barbara, California, U.S.A.*
This publication is the organ of the International Museum of Comparative Oology. The first number contains mostly contributions by the Editor on various subjects, some of them unconnected with oology. It continues the *Museums Journal.*

COMPTE RENDU DES SÉANCES DU CONGRÈS INTERNATIONAL D'ORNITHOLOGIE. *See* ORNIS and CONGRESS.

COMPTE RENDU DE LA SOCIÉTÉ FRIBOURGEOISE DES SCIENCES NATURELLES. 1879–*date*. *See* FRIBOURG.

COMPTE RENDU DES SÉANCES DE LA SOCIÉTÉ DE PHYSIQUE ET D'HISTOIRE NATURELLE DE GENÈVE. 1814–*date*. *See* GENEVA.

COMPTES RENDUS DE LA SOCIÉTÉ LINÉENNE DE BORDEAUX. 1831–*date*. *See* BORDEAUX.

COMTE, Joseph Achille [1802–66].
1841. The Book of Birds. *8vo. 38 col. pl. 150 text-figs. See also* BUFFON, G. L. *London.*
One of the Buffon series, translated by Benjamin Clarke.

(THE) CONCISE KNOWLEDGE LIBRARY.
1904. The concise knowledge natural history, by R. Lydekker, R. Bowdler Sharpe, and others. *See* LYDEKKER, R.

(THE) CONDOR; a magazine of western ornithology. Pub. by the Cooper ornithological club of California.
1899–1930. *Santa Clara, Cal.* [*etc.*]
Not only is this well-known, profusely illustrated, well-printed, and well-edited magazine a repository of much valuable information regarding Pacific Coast Ornithology, but its many papers record new species and original observations on bird life in other parts of the Union and in neighboring countries, including Canada and Mexico. To its columns have contributed the best names among western naturalists while its editorial staff constitutes a list of energetic, scientific, and devoted ornithologists. Apart from this official staff one notices the names of Harold Bryant, J. H. Bowles, Leon Dawson, H. J. Rust, W. P. Taylor, J. C. Tyler, R. H. Beck, Donald Dickey, and many other well recognized authorities—thus establishing the *Condor* as the first among the special journals published west of the Alleghanies. The present success of the journal has been largely due to the untiring devotion of the editor-in-chief, Joseph Grinnell.

CONFÉRENCE INTERNATIONALE POUR LA PROTECTION DE LA NATURE.
1914. Recueil des procès-verbaux, 1913. *folio. pp. 247. illust.* *Berne.*

CONGER, George Perrigo [1884–].
1929. New views of evolution. *8vo. pp. 10+235. illust.* (Philosophy for the layman series.) *New York.*
A popular but reliable treatment of the subject.

CONGRÈS INTERNATIONAL DE DÉFENSE DES INDUSTRIES DE LA PLUME POUR PARURES. PARIS, 1914.
1914. Rapport général. *4to. pp. 126+[1]. pl.*
Largely an ill-concealed defence of the traffic in birds' feathers for the purposes of fashion.

CONGRÈS INTERNATIONAL DE ZOOLOGIE. 1889–*date*.
The Comptes rendus, Bulletins, Vorträge, Proceedings, etc., of the quadrennial meetings are generally issued from the place of meeting. The first session took place at Paris in 1889; then Moscow, 1892; Leyden, 1895; Cambridge (Eng.), 1898; and so on. *See also* ORNIS and INTERNATIONAL CONGRESS OF ORNITHOLOGY.

CONGRÈS NATIONAL DES PÊCHES MARITIMES.
1907?–9? Mémoires et Comptes Rendus.

CONGRÈS, NEDERLAND. Natur en Geneeskunde. *See* NED. NATUR EN GEN. CONGRES, 1887–*date*.

CONGRESO DE NATURALISTAS ESPAÑOLES. *Saragossa.*
1908? Actas y Memorias.

CONGRESS, INTERNATIONAL, OF ORNITHOLOGY.
Although an organ (see *Ornis*) was early appointed for reporting the activities of the Congress these were often published elsewhere under one or more rubrics. A list of some of them follows:
I. Premier Congrès international Ornithologique, à Vienne, April 1884.

1884. Rapport du Délégué Suisse. *8vo. pp. 35.* *Genève.*

II. Internationaler Ornithologischer Congress, Budapest, 1891. Transactions. (Bericht, Compte rendu, and Hungarian report) appear in the three languages and appear in three parts. (1) Official: Berlin and Budapest, 1892. (2) Scientific. (3) Migration, etc., and Index.
Congrès Ornithologique international d'Aix-en-Provence, Nov. 1897.

[**1898**]. Actes, délibérations, résolutions. *4to. pp. 43.* [*Aix.*]

III. Congrès Ornithologique international, Paris, 1900.

1902. Compte rendu des séances publié par E. Oustalet et J. de Claybrooke. *8vo. with plates and cuts.* *Paris.*

IV. **1907.** Proceedings of the Fourth International Ornithological Congress, London. June 1905. Forming Vol. 14 of *Ornis.* Ed. by R. B. Sharpe, E. J. O. Hartert, and J. L. Bonhote. *pp. 696. 18 pl. (6 col.) and figs.* *London.*
The proceedings of the fifth Congress, held in Berlin, were published altogether independently of *Ornis,* that journal having ceased, apparently, to be the official organ of the Congress. See *Ornis.*

V. International ornithological Congress. Fifth, Berlin, 1910.

1911. Verhandlungen des v. Internationalen Ornithologen-Kongresses in Berlin 30. mai bis

[CONGRESS, INTERNATIONAL, OF ORNITHOLOGY (*contd.*)]

4. juni 1910. Hrsg. von Herman Schalow . . . Deutsche ornithologische Gesellschaft. *pp. x+1185+[1]. illust. pl. (part col.). maps (part fold.).* *Berlin.*

VI. Congrès International Ornithologique. Sixth Session: Copenhagen, 1926.

1929. Verhandlungen des VI. Internat. Ornithologen-Congresses in Kopenhagen, 1926. Unter Leitung des Präsidenten . . . F. Sleinbacher. *8vo. pp. 6+641. 20 pl. 1 map. figs. in text.* *Berlin.*

VII. **1930.** Seventh Congress. Amsterdam, Holland. June 1–7. President, Prof. Dr. Einar Lönnberg, Stockholm. Secretary, Prof. Dr. L. F. de Beaufort, 53 Plantage Middenlaan, Amsterdam.

CONGRESS OF RUSSIAN ZOOLOGISTS, ANATOMISTS AND HISTOLOGISTS.
1922–*date*. Proceedings.

CONGRESSO DEI NATURALISTI ITALIANI. *Milan.*
1906?–7? Atti.

CONNECTICUT ACADEMY OF ARTS AND SCIENCES. *New Haven.*
1818–65. Memoirs. (Published in American Journal of Science.)

1866–1909. Memoirs. (Published in Transactions.)

1866–*date*. Transactions.

CONRAD (VON MEGENBERG) [1309–78]. *See* VON MEGENBERG KONRAD.

CONSTANTINUS, AFRICANUS [d. 1087].
1560. ΖΩΟΤΡΟΦΕΙΟΝ; seu, Leporarium, quorundam animaliū quadrupedum & auicularum continens naturas as proprietates, rem medicam concernentes; per Georgium Pictorium . . . accedit Constantini Africani . . . de animalibus elegantissimus liber, & Lippii Collēsis, Oppiani poetae Halieuticon, sive de piscibus tractatus, scholiis eiusdem Georgii Pictorii Villingani breuiter admodum illustratus. *pp. 58+2.* *Basileae.*

An account of the natural history writings of Constantinus Africanus will be found in the last edition of the *Encyclopaedia Britannica*, vol. 27.

(THE) CONTEMPORARY SCIENCE SERIES. Edited by Havelock Ellis.
1893. The industries of animals, &c. *See* HOUSSAY, F.

1899. The history of the European fauna. *See* SCHARFF, R. F.

CONTRAFACTEUR ALLER VIERFÜSSIGEN THIER-EYGENTLICHE UND GANTZ ARTLICHE CONTRAFACTEUR. *See* ANONYMOUS, 1551.

CONTRERAS, MARCEL DE.
1905. Les oiseaux observés en Belgique. *8vo. pp. xvi+389. cuts in text. 1 col. pl. T. of c. index.* *Bruxelles.*

The first of a two-volume treatise on Belgian birds, well written but poorly illustrated. A second volume was issued in 1907.

CONTRIBUTIONS TO AMERICAN ORNITHOLOGY.
Vol. I, Oct. 1901–May 1902. *pp. 1–32.* (All issued?) *Longwood, Mass.*

CONTRIBUTIONS OF THE BAYLOR UNIVERSITY MUSEUM.
1928. No. 11. Birds and Snakeskins by J. K. Strecker.

CONTRIBUTIONS OF THE CHARLESTON MUSEUM, CHARLESTON, S.C. **1910–*date*.**

CONTRIBUTIONS À LA FAUNE DES INDES NÉERLANDAISES.
1914–18. Continued as Treubia.

CONTRIBUTIONS TO NORTH AMERICAN ORNITHOLOGY.
1901–4. 9 parts (all issued).

CONTRIBUTIONS TO ORNITHOLOGY.
1848–52. A Year-Book, edited by Sir Wm. Jardine, with 103 hand-coloured plates of Birds and their Nests and Eggs. *5 vols. 8vo.* *Edinburgh (and London).*

[Vol. I] July 1848. Articles irregularly and separately paged. *pp. 58. 8 col. and 2 plain illust. T. of c.* Three parts were issued in 1848. *Edinburgh and London.*

[Vol. II] 1849. Contributions separately and irregularly paged. *pp. 138. 25 col. and 2 plain pl.* Seven parts issued in this year.

[Vol. III] 1850. Similar to foregoing, only more numerous articles. *pp. 153. 20 col. pl. 3 woodcuts. T. of c.* Seven parts issued during 1850.

[Vol. IV] 1851. Similar to foregoing; pagination more regular. *pp. 163. 15 col. and 2 plain pl. T. of c.* Six parts this year.

[Vol. V] 1852. Regular and continuous pagination. *pp. 162. 18 col. pl. 4 figs. T. of c.*

Reprint of 1860 (?). This edition is bound as two volumes text and plates. 'Contributions to Ornithology', 1848–52. The two volumes appear in detail as follows:

[Vol. I] Text (1860?). Pagination as in original. *T. of c.* (*viii pp.*) for years 1848–52. A few colored and plain cuts in text. Plates: 101 colored and black and white. *London.*

[Vol. II] Plates. These plates vary decidedly in coloration from the original. In the Br. Museum Nat. History Library copy, plate 67 is missing.

This Annual, constituting the earliest British periodical on ornithology, contains papers by many of the older ornithologists—Gould, Eyton, Blyth, Schlegel, Hartlaub, Sclater, Sir Wm. Jardine, Kaup, and others, on West African, South African, Indian, and South American birds, and is beautifully illustrated by numerous colored and plain plates. The chief contribution, however, is that of the Editor of a review of ornithological literature and progress for the previous year.

CONTRIBUTIONS TO SCIENCE. By CHAS. J. MAYNARD.
1889–96. Vols. I–III. *8vo. illust. Newtonville, Mass.*

COOK, ALBERT JOHN [1842–1916].
1893. Birds of Michigan. 2nd ed. *8vo. pp. 168. illust.* (Michigan Agric. College, Bulletin 94.) *Lansing.*

In the edition issued in April 1893, there are only 11 text-figures and 148 pages of letterpress.

COOK, *Capt.* JAMES [1728–79].

1775. Journal of the Resolution's voyage in 1772, 1773, 1774, and 1775 . . . discovery to the southern hemisphere, by which the non-existence of an undiscovered continent, between the equator and the 50th degree of southern latitude, is demonstratively proved. Also a journal of the Adventure's voyage, in the years 1772, 1773, and 1774. With an account of the separation of the two ships, and the most remarkable incidents that befell each. *pp. xiv+328. front. (map fold.). 5 pl.* *London.*

The first edition of this famous navigator's second voyage round the world. References to birds: albatrosses, petrels, penguins, gannets, tropic, and man-of-war birds. Other editions appeared, 1777, 1784, 1808–9, and 1821.

1777. A voyage towards the south pole, and round the world. Performed in His Majesty's ships the Resolution and Adventure, in the years, 1772, 1773, 1774, and 1775. *2 vols. 4to. T. of c.* Vol. II, *pp. (8)+396. 20 pl. (11 fold.). 7 maps (3 fold.). 3 figs. T. of c.* *London.*

An enlarged and illustrated edition (2nd voyage) of the original (1775). References to birds are numerous throughout both volumes, there being an illustration and description in this edition of the Poe-bird of New Zealand, as well as others not mentioned in the first edition.

1784. A voyage towards the South Pole, and round the world. Vol. I, *pp. (4)+xxv+372. T. of c.* Vol. II, *pp. (8)+392. 3 figs. T. of c. vocab.* *Dublin.*

A smaller edition (8vo) of the larger 4to edition of 1777, without the illustrations.

1799. [Facsimile of that part of the Log of the 'Resolution' written by Henry Roberts, Mate, who was in charge of the Pinnace in which Capt. Cook went ashore for the last time, to be killed by the natives of what is now Hawaii. Roberts was an eyewitness of the tragedy.] *super-folio. pp. 2. map.*

One of 50 copies published by Francis Edwards, who presented the copy in hand to the E.S.W. Library of Ornithology.

1808–9. Voyages round the world. The first, 1768–71; the second, 1772–75; the third and last, 1776–80; for making discoveries in the northern and southern hemispheres. *3 vols. 8vo.* Vol. I. (Wanting.) Vol. II, *pp. 516. 5 pl.* Vol. III, *pp. 495+(1). 11 pl.* *Glasgow.*

Contains an account of the first, second, and third voyages.

1821. The three voyages of Capt. James Cook round the world. Map and other plates. *7 vols. 8vo.* Vol. I, *pp. xii+398. front. (portr.). 5 pl. 1 map (fold.). T. of c.* Vol. II, *pp. vii+(1)+368. front. T. of c.* Vol. III, *pp. vii+(1)+372. front. 3 pl. T. of c.* Vol. IV, *pp. viii+304+(1 fold.). front. 2 pl. T. of c. vocab.* Vol. V, *pp. vii+(1)+472. front. 1 pl. T. of c.* Vol. VI, *pp. viii+503. front. 5 pl. T. of c.* Vol. VII, *pp. xi+(1)+462+(1 fold.). front. 2 pl. T. of c. append.* *London.*

A complete account of the three voyages: Vols. 1–2 containing that of the first, vols. 3–4 that of the second, and vols. 5–7 that of the third voyage. References to birds occur throughout all seven volumes, but without the illustration of the Poe-bird contained in the edition of 1777.

COOKE, ARTHUR O.

1920. A book of dovecotes. *8vo. preface. pp. 16+286+8. col. front. 3 col. pl and 41 figs. in text. T. of c. index.* *London.*

A very useful and interesting account of *Columbaria*, ancient and modern, in the British Isles, and to some extent on the Continent.

COOKE, EDWARD WILLIAM [1811–80].

1872. Entwickelungsgeschichte. Grotesque animals invented, drawn, and described. *4to. pp. vi+24. 24 pl.* *London.*

A series of Grotesques of animal forms invented by the author (suitable for ecclesiastic and other types of architecture).

COOKE, MAY THACHER.

1923. Report on bird censuses in the United States 1916 to 1920. United States Department of Agriculture. Department Bulletin no. 1165. *8vo. pp. 36. 1 fig. (map). T. of c.* *Washington.*

Definite information regarding the number, distribution, and relative abundance of the breeding birds of the United States, with map showing the localities from which reports on bird censuses were received for the five years 1916–20.

COOKE, MORDECAI CUBITT [1825–96].

1893. Our reptiles and batrachians . . . with MS. notes by H. Kirke Swann loosely inserted.

COOKE, THOMAS.

1823. A Letter to Mark Milbank . . . Whistling Swan, etc. *folio. pp. 12. 2 pl.* *London.*

COOKE, WELLS WOODBRIDGE [1858–1916] and **WIDMAN,** O.

1884. Bird migration in the Mississippi valley. *8vo. pp. 37.* *New York.*

1888. Report on bird migration in the Mississippi valley in the years 1884–85; ed. and rev. by C. H. Merriam. U.S. Department of Agriculture. Division of Economic Ornithology. Bulletin no. 2. *8vo. pp. 313. map (col. fold.). T. of c. index.* *Washington.*

The present Report consists of two parts: (I) an introductory portion treating of the history and methods of the work, together with a general study of the subject of Bird Migration; (II) a systematic portion in which the 560 species of birds known to occur in the Mississippi Valley are treated serially, the movements of each during the seasons of 1884 and 1885 being traced with as much exactness as the records furnished by the 170 observers in the district permit.

1897–1900. The Birds of Colorado. *3 vols. 8vo. pp. 143. bibliogr. index.* *Fort Collins.*

An annotated list of the birds of the State, based on all available records. A detailed bibliography is also included, pp. 20–39. Supplements to this list were published later as Bulletins Nos. 44 and 56 of the Agricultural Station, 'Further Notes on the Birds of Colorado', 1898, and 'A second Appendix', 1900, with which the present copy is bound.

1898. Further notes on the birds of Colorado. *8vo. pp. 3+148–76. bibliogr. index.* *Fort Collins.*

Supplementary notes and additions to the original paper on *The Birds of Colorado*, 1897, published as Bulletin No. 37 of the Agricultural Station.

1900. The birds of Colorado. A second appendix to bulletin no. 37. *8vo. pp. (2)+179–239. bibliogr. index.* *Fort Collins.*

A second appendix to Bulletin 37 of the Agricultural Station, bringing the subject to date.

1906. Distribution and migration of North American ducks, geese, and swans. *8vo. pp. 90. T. of c. index.* *Washington.*

This report furnishes information as to present range, abundance, and migration of the several species, to be used in legislation for their preservation. Author's excerpt from *Bull. No. 28, Biol. Survey.*

1910. Distribution and migration of North American shorebirds. *8vo. pp. 100. pl.* (U.S. Dept. of agriculture. Biological survey. Bulletin no. 34.) *Washington.*

This Government *Bulletin* is illustrated with drawings made by Louis A. Fuertes.

[**COOKE**, W. W. (*contd.*)]

[**1914**]. Our greatest travelers, &c. *8vo. illust. Washington.*

Reprinted from the *Nat. Geog. Magazine.*

1915. Bird migration. *8vo. pp. 47+(1). 4 pl. 20 figs. (maps). T. of c. Washington.*

New edition of a similar pamphlet, *Some New Facts about the Migration of Birds*, 1903, only that the present one is much fuller and replete with additional information.

1915. Distribution and migration of North American gulls and their allies. *8vo. pp. 70+(1). 31 figs. (28 maps). T. of c. index. Washington.*

An annotated list of the species, with maps showing their distribution, migration, and breeding ranges, preceded by notes on their economic importance, protection, etc.

1917. The warblers of North America. *See* CHAPMAN, F. M.

[**1918**]. The mysteries of bird migration (National geographic society: The book of birds).

COOPER, JAMES GRAHAM [1830–1902] and **SUCKLEY,** GEORGE.

1855–9. The natural history of Washington Territory, with much relating to Minnesota, Nebraska, Kansas, Oregon, and California. Catalogues and descriptions of the plants and animals collected from 1853 to 1857. *3 pts. in 1 vol. folio. 66 pl. (partly col.). map. Washington.*

'This volume consists of those parts of the [twelfth vol.] of the Pacific railroad reports, which describe the natural condition of the country traversed by the surveying expedition near the 47th and 49th parallels of latitude . . . None of the plates in this volume have been before published.'—Pref. *See also* SUCKLEY, GEORGE.

**** and **BAIRD,** SPENCER FULLERTON.

1870. Ornithology of California. (Geological Survey of California.) Ornithology. Vol. I. Land Birds. Edited by S. F. Baird, from the manuscript and notes of J. G. Cooper. *4to. pp. xi+(1)+592. 663 figs. (1 diagr.). T. of c. append. glossary. 2 indexes. Cambridge, Mass.*

A report on the birds of California prepared by Cooper from his own field-work and notes, and submitted to Baird for revision and publication. Baird added considerable matter, which appears over his signature, in addition to the technical descriptions which were taken, principally, from Baird, Cassin, and Lawrence's *The Birds of North America*, 1860. The general accounts, except where signed otherwise, are from the pen of Cooper. Vol. II was to have comprised a similar volume on the water birds, but was replaced by the two volumes of Baird, Brewer, and Ridgway on *The Water Birds of North America*, 1884.

Bound in with this copy is a manuscript note from the Compiler stating that this work was considered to be out of print and scarce until some hundred or more unbound copies were discovered on the premises of the University of California Press, which were assembled and placed on sale for the use of students, some of the copies being defective, in that the introduction was missing, but this is not essential to students. The Compiler, in the same note, records the fact that a few copies were issued with the heads of the birds handcolored, but that he had never seen one, nor could he discover who did the coloring. Attached also to this library copy is a postal card from Cooper dated August 22, 1878, to Ruthven Deane, in reference to the nests and eggs of certain birds.

It may here also be noted that *The Wealth of California*, by Cronise (q.v.), contains a section on birds taken from Cooper's treatise.

COOPER, J. W.

[**1869**]. Game fowls, their origin and history, with a description of the breeds. *8vo. pp. 304. front. (col.). 1 pl. (col.). T. of c. index. West Chester, Pa.*

An enlarged printing of the author's small pocket edition, for the use of Game Fanciers and Cockers.

COOPER, S. F.

1851. Rural hours. 4th ed. *New York.*

A popular work on natural history.

COOPER, SARAH.

1887. Animal life in the sea and on the land. A zoology for young people. *8vo. pp. xiii+(1)+413. front. illust. 278 figs. T. of c. index. New York.*

COOPER ORNITHOLOGICAL CLUB. *See* CONDOR; *also* BULLETIN OF THE COOPER ORNITHOLOGICAL CLUB; OSPREY, and PACIFIC COAST AVIFAUNA.

1926. First Annual meeting. Report. *8vo. pp. 4. Los Angeles.*

The dates of the meetings are fixed at the opposite end of the calendar from that of the A.O.U. meeting so as to avoid any possible conflict, while it is also the time at which south-western bird life is at its best.

1926. Report of an exhibition of paintings of American bird artists assembled by the Cooper ornithological club. *8vo. pp. (46). 16 figs.*

An illustrated catalogue of the drawings and paintings exhibited by various artists, with brief accounts of their lives.

COPE, EDWARD DRINKER [1840–97].

1865. Sketch of the primary groups of *Batrachia salientia. 8vo. pp. 24.*

Author's reprint from the *Natural History Review*, Jan. 1865.

1868. *See* AMERICAN NATURALIST.

1869. On the origin of genera. *8vo. pp. 80.* Proc. Acad. Nat. Sciences. Presentation copy from author. *Philadelphia.*

1869. *See* BAILY, WILLIAM L.

1873–90. *See* UNITED STATES. SURVEY TERRITORIES.

1874–89. *See* UNITED STATES. HUNDREDTH MERIDIAN.

1880. On the zoological position of Texas. *8vo. pp. (4)+51. T. of c. index. Washington.*

The twentieth of a series of papers intended to illustrate the collections of natural history and ethnology belonging to the United States, and constituting the National Museum. There are a few notes on the birds on p. 12, the most interesting being on the chaparral cock (*Geococcyx viaticus*).

1885. *See* KINGSLEY, J. S., *ed.*

1886. An Analytical Table of the Genera of Snakes. *8vo. pp. 21. Phila.*

A valuable but brief pamphlet and author's reprint.

1896. The Geographical Distribution of Batrachia and Reptilia in North America. *8vo. pp. 40.*

Author's reprint of a classic from the *American Naturalist.*

1896. The Primary Factors of Organic Evolution. *8vo. pp. 16+547. Illust. Chicago.*

In this volume of his collected essays the author's theories on vertebrate paleontology are fully discussed.

1898. Syllabus of lectures on the vertebrata. *4to. pp. 36+135. portr. pl. Phila.*

1900. Crocodilians, Lizards and Snakes. *Wash.*

A fundamental treatise by a fluent writer and famous authority.

COPEIA. (Organ American Society Ichthyologists and Herpetologists.) **1913**–*date. New York.*

The Jan., 1931, number is entirely devoted to celebrating the eightieth birthday of David Starr Jordan.

COPENHAGEN.

1790–1810. Naturhistorie-Selskab. Vols. I–VI (all pub.).

COPENHAGEN. K. Dansk Videnskabernes Selskab.
1816, (1837), 1842–*date*. Oversigt over det . . . Forhandlinger, etc. *8vo.* (17 vols. to 1907). *Kjøbenhavn.*

1907–*date*. Naturhistorisk Forening. Danmarks Fauna; illustrerede Haandbøger over den danske Dyreverden. Nos. 1–27 (1907–24). *illust. maps.*

COPENHAGEN UNIVERSITAT. Zoologiske Museum.
1917–*date*. Publikationer.

COPINEAU, Abbé (18th cent.).
1780. Ornithotrophie artificiele; ou, Art de faire éclore & élever la volaille par le moyen d'une chaleur artificiele. *16mo. pp. 514+x+(4). 4 pl. (fold.). T. of c.* *Paris.*
On the art of incubating fowls' eggs by artificial heat.

COPINGER, W. A.
1926. Supplement to Hain's Repertorium Bibliographicum. *4 pts. in 2 vols.* *Berlin.*
A well-known and very valuable aid to the bibliographer.

COQUILLE, LA, VOYAGE OF. *See* DUPERREY, LOUIS ISIDORE, 1826–30.

CORDEAUX, John [1830?–99].
1897. Anseres. *See* BUTLER, A. G. British birds, &c. Vol. IV.

****** and others.**
1880–7. Report on the migration of birds in . . . 1879–86. *See* BROWN-HARVIE, J. A.

CORDIER, Albert Hawes [1859–].
1923. Birds, their photographs and home life. 145 photo. *8vo. pp. (6)+(16)+17–247. front. 72 pl. T. of c. index.* *Phila.*
A popular account of 85 species of American birds, with instructions for photographing them. Inserted is a letter dated June 18, 1924, from the author to the late Dr. H. Gifford of Omaha, Neb.

CORMACK, W. E.
1928. Narrative of a journey across . . . Newfoundland in 1822. Ed. by F. A. Bruton. *12mo. pp. 138. map. illust.* *London.*
Mostly on natural history, with pictures of flora and fauna and a good description of both. The author was among the earliest explorers of the island.

CORNALIA, Emilio [1824–82].
1849. Vertebratorum Synopsis in Museo Mediolanense, etc. *4to. pp. 16. 1 pl.* *Mediolani.*

1870–4. Fauna d'Italia. *4 pts. 4to.* *Milan.*
A fine example of a local natural history. The author wrote the articles on mammals; T. Salvadori, the birds; G. Canestrini on the fishes; and E. de Betta, the reptiles and amphibia.

CORNEAU, Napoleon A.
1923. Life and Sport . . . of the Lower St. Lawrence. Introd. by E. T. D. Chambers. *8vo. pp. 440. illust.* *Quebec.*
This interesting work contains notes by the author on the flora and fauna of northern Canada, as well as a list of 208 species of Birds by C. Hart Merriam. The volume seems to be little known as it is not listed in the *Cat. Br. Mus. (Nat. Hist.).*

CORNELIUS, Carl.
1865. Die Zug- und Wander-Thiere aller Thierklassen. *8vo. pp. viii+341.* (Wanting.) *Berlin.*

CORNELL UNIVERSITY.
1899–1901. Cornell nature-study [quarterly] bulletin; issued by the College of agriculture and Experiment station. Nos. 1–9. *1 vol. 8vo. illust.* *Ithaca.*

CORNISH, Charles John [1859–1906].
1895. Life at the Zoo. 2nd ed. *pp. vi+(2)+340. front. 15 pl. T. of c.* *London.*
Some of these chapters originally appeared in the *Spectator*, and with the others present a fair picture of the famous menagerie in Regent's Park. References to birds occur throughout the volume.

[**1895**]. Wild England of to-day and the wild life in it. 2nd ed. *8vo. pp. xiii+(3)+310. front. 15 pl. T. of c.* *London.*
Most of the text appeared in the *Spectator*. Birds figure very largely throughout the volume. The first edition appeared also in 1895.

1896. Animals at work and play, their activities and emotions. *8vo. pp. 12+323. pl.* *London.*
An unusual, interesting, and careful study of the psychology of some phases of animal life.

1898. Animals of To-day, etc. *8vo.* *London.*

[**1901–2**]. The Living Animals of the World; a popular Natural History. 1st ed. *2 vols. 4to. col. illust.* *London.*
A very good popular work that includes excellent chapters on the vertebrata, mammals (mostly) by F. C. Selous; birds by W. P. Pycraft; reptiles and amphibia by W. Saville-Kent; fishes (chiefly) by W. P. Pycraft. Several translations and printings have been published. The McGill libraries have most of these, including an English edition dated (1914).

1902. The naturalist on the Thames. *8vo. pp. viii +260. front. 22 pl. T. of c.* *London.*
A commentary on the natural history and character of the valley as a whole, from the upper waters to the mouth.

1903. De levande djuren på jorden. Populära skildringar från livet i naturen. Övers. o. delvis bearb. av L. Gabr. Andersson. *2 vols. 4to. pp. 806. 1,153 illust. 25 col. pl.*
This edition of a popular, scientific treatise on natural history has been translated and revised by L. G. Andersson and further illustrated with photographic reproductions.

1903. The People's Natural History, etc. *5 vols. 2,000 illust.* *New York.*

1917. Birds of other lands, reptiles, fishes, jointed animals and lower forms; editors and special contributors, Charles J. Cornish, Sir Herbert Maxwell . . . and many others. *New York.*
A popular treatise on general zoology.

1917. Mammals of other lands; by other editors and special contributors. *New York.*

n.d. Animaux Vivants du Monde. *2 vols. 4to. illust. col. pl.* *Paris.*
A French (abridged) edition of the author's *Living Animals of the World.*

CORNISH, W. F.
1837. Observations on the Habits of Exotic Birds, etc. *1 vol. 16mo.* (Wanting.) *Exeter.*

CORRESPONDENZA ZOOLOGICA. 1839. *Naples.*

CORWIN, VOYAGE OF THE. Voyage to Alaska. *See* UNITED STATES, 1883.

CORY, CHARLES BARNEY [1857–1921].

1878. A naturalist in the Magdalen Islands; giving a description of the islands and list of the birds taken there, with other ornithological notes. *8vo. pp. iv+(2)+7–93. front. 1 pl. 1 fig. T. of c. append. index.* *Boston.*

The first five chapters contain a short account of the islands, with the author's experiences thereon, followed by a catalogue of the birds taken or observed. The appendix contains a list of hypothetical species.

1880. Birds of the Bahama Islands; containing many birds new to the islands, and a number of undescribed winter plumages of North American species. *8vo. pp. 250. front. 7 pl. illust. T. of c. append. index.* *Boston.*

A popular account of 149 species. The appendix contains a further list of 36 species not recorded from the Bahama islands but which might occur there. A copy of the same date in the *Ayer Catalogue* has colored plates, but in the one under notice they are plain. A revised edition was issued in 1890.

1880–3. Beautiful and curious birds of the world. *double el. folio. 20 col. pl. index.* Published in 7 pts. Edition limited to two hundred copies. *Boston.*

This is a collection of 20 fine, hand-colored plates, eight of them by J. Smit, with descriptive text. The portrait of the Great Auk is the picture that has for many years adorned the cover of the *Auk*. Other curious portraits are those of the Dodo, Lyre Bird, Spotted Bower Bird, and several Birds of Paradise.

1885. The birds of Haiti and San Domingo. *4to. pp. (3)+8–198. front. (map). 22 pl. (col.). 10 figs. T. of c. 2 indexes.* *Boston.*

Issued in four parts according to the wrappers bound in at the end of the volume, pts. I–III dated 1884, and pt. IV, 1885. A monograph of the birds of the islands of Haiti and San Domingo, with synonymy, description of plumages, and notes on each of the species.

1886. A list of the birds of the West Indies, including the Bahama Islands, and the Greater and Lesser Antilles, excepting the islands of Tobago and Trinidad. Revised ed. *folio. 2 pr. ll. +5–34 ll.+1 (printed one side only). append. index.* *Boston.*

Similar to the author's work of the same title, 1885. The species are not numbered in this edition and the list is printed on one side of the paper only. It is said that nearly the whole of the present issue was destroyed by fire, and is, consequently, very rare.

1887. Descriptions of six supposed new species of birds from the islands of old Providence and St. Andrews, Caribbean sea. A list of the birds taken by Mr. Robert Henderson, in the islands of Old Providence and St. Andrews, Caribbean Sea, during the winter of 1886–87. *8vo. pp. (2)+177–81.* *[New York.]*

Author's edition, *Auk*, July 1887, 250 copies.

1887. Description of a new species of rhamphocinclus from St. Lucia, West Indies. Author's edition. (From the *Auk*, vol. IV, no. 2, April 1887.) *8vo. pp. 94–6.*

1889. The birds of the West Indies. Including all species known to occur in the Bahama Islands, the Greater Antilles, the Caymans, and the Lesser Antilles, excepting the islands of Tobago and Trinidad. *8vo. pp. (2)+324. 2 pl. (maps). 19 figs. bibliogr. append. index.* *Boston.*

Most of the matter contained in the present work, as well as some of the drawings, appeared in the *Auk* for 1886, 1887, and 1888. Descriptions of new species since added to the West Indian avifauna, which were either new to science or had not previously been recorded from that locality, are given in the appendix, unless included in their proper order in the body of the work. A number of alterations and corrections have been made in the original plates, and several new illustrations have been added. The volume in hand is a presentation copy, from Col. H. W. Feilden's library.

1890. The birds of the Bahama Islands. Containing many birds new to the Islands, and a number of undescribed winter plumages of North American birds. Revised ed. *4to. pp. (2)+24+9–250. front. 8 pl. T. of c. bibliogr. append. index.* *Boston.*

The present edition (with eight colored plates) differs from that of 1880 in having a new title-page, as well as 16 pages of additional text.

1892. Catalogue of West Indian birds, containing a list of all species known to occur in the Bahama Islands, the Greater Antilles, the Caymans, and the Lesser Antilles, excepting the islands of Tobago and Trinidad. *8vo. pp. 163. 1 map (fold.). T. of c. bibliogr. append. 2 indexes.* *Boston.*

A list of species with their distribution given in tables, followed by a complete bibliography of ornithological publications relating to the West Indies.

1896. A list of the birds of Florida. *8vo. pp. 24.* *Boston.*

A simple list of 352 species and subspecies, with scientific and vernacular names.

1896. Key to the water birds of Florida. *8vo. pp. 172. 2 pl. (diagr.). 240 figs. glossary. 2 indexes.* *Boston.*

A popular Key for identifying with comparative ease any species of the Florida water birds.

1897. How to know the ducks, geese and swans of North America, all the species being grouped according to size and color. *8vo. 23½×18½ cm. pp. 95. front. illust. 138 figs. in text. T. of c. index* *Boston.*

A systematic handbook on the subject, with an identification key.

1897. How to know the shore birds (*Limicolæ*) of North America (south of Greenland and Alaska) all the species being grouped according to size and color. *8vo. 23×18 cm. front. illust. 178 figs. in text. T. of c. index.* *Boston.*

A most useful systematic catalogue of North American shore birds arranged for identification, for which a practical purpose key is provided, mostly based on the size of the species.

1899. The birds of eastern North America known to occur east of the nineteenth meridian. Water Birds, part I. Land Birds, part II. Key to the families and species. Special edition printed for the Field Columbian Museum, Chicago. *2 vols. 8vo. illust.* Vol. 1, *pp. (4)+iii–ix+(1)+142. 532 figs. T. of c. glossary. index.* Vol. 2, *pp. ix+(1)+ 131–387 front. (diagr.). 722 figs. T. of c.* *Chicago.*

1909. The birds of Illinois and Wisconsin. *8vo. pp. 764+(3). 1,260 figs. 1 map. T. of c. glossary. bibliogr. index.* Field Museum of Natural History. Publication 131. Zoological series. Vol. IX. *Chicago.*

An illustrated Manual describing 398 birds of Illinois and Wisconsin.

1909. Birds of the Leeward Islands. *pp. 56.* (Field Museum. Pub. No. 137.) *Chicago.*

1912. The mammals of Illinois and Wisconsin. *Chicago.*

******** and **HELLMAYR,** CARL E.

1918–30. Catalogue of the birds of the Americas, and the adjacent islands. *2 vols. 4to.* (Field Mus. Nat. Hist. Publications. Zoological Series. Vol. XIII. *pp. 607.*) *index to vols.* *Chicago.*

This extensive work (to be completed in eight volumes), begun by the late Charles B. Cory and continued by Carl Edward Hellmayr, includes 'all species and subspecies known to occur in North America, Mexico Central America, South America, the West Indies, and other

islands which may be included on account of their faunal affinities'. The first number treats of 11 families, the second, seven families. These volumes have each a colored frontispiece but are otherwise not illustrated. In the synonymies references are mostly confined to original descriptions with type localities.

COSSMAN, ALEXANDRE ÉDOUARD MAURICE [1850–1924].

1901. Additions à la faune nummulitique d'Égypte. *8vo. pp. 27+3 pl.* (Institut égyptien.) *Le Caire.*

COSTA, EMANUEL MENDES DA [1717–91].

1757. A natural history of fossils. Vol. I, pt. 1 (all pub.). *4to. pp. 8+294. 1 pl. London.*

COSTA, ORONZIO GABRIELLE [1787–1867].

1857. Fauna di Regno di Napoli. *119 fascicoli. 382 col. pl. Napoli.*

An excellent account of the animal kingdom as found in the middle of the nineteenth century in Southern Italy. Those fascicles that treat of individual subclasses are occasionally for sale bound separately. The complete work is rare.

1857. Fauna del Regno di Napoli ossia enumerazione di tutti gli animali . . . contenente la descrizione de' nuovi o poco esattamente conosciuti. *Uccelli. 2 pts. in 1 vol. 4to.* Pt. I, *pp. (4)+vi+7–88.* Pt. II, *pp. 66+(2). 15 pl. (col.). 3 indexes. Napoli.*

The ornithological portion of the author's larger work on the fauna of the Province of Naples, Italy. Part I contains a systematic catalogue of species, whilst part II gives detailed descriptions of certain noteworthy species. The work was spread over a number of years, the preface to the present portion being dated 1839, whilst the title-page bears the date of 1857. In the preface to part II, p. 5, mention is made of an intended third part, which probably never appeared, as no other reference can be found to it.

COTES, H.

1821. A history of British birds. Vol. 2. Water birds. [The text by H. Cotes.] *See* BEWICK, T.

COTTEREAU, ELIE (*Abbé*).

1919. Les oiseaux observés dans l'arrondissement de Saint-Calais. *8vo. pp. 49. 1 col. pl. index. Saint-Calais.*

A short descriptive list of local birds, with a preface by A. Ménégaux, intended to act as a guide to the ornithological museum of the municipality of Saint-Calais in the Dept. of the Sarthe, France.

COTTESWOLD NATURALISTS' FIELD CLUB, GLOUCESTER.

1847/53–*date.* Proceedings.

COTTON, JOHN.

1835. The resident song birds of Great Britain; with a short account of their general habits. *8vo. pp. 76. 17 pl. (col.). London.*

A popular account of 17 well-known British singing birds, the present publication to form part of a volume on the *Song Birds of Great Britain.*

1836. The Song Birds of Great Britain. *8vo. 33 col. pl. London.*

A very rare treatise in its complete form. Not listed in the *Cat. Br. Mus. (Nat. Hist.).*

******** and **TYAS,** R. [1811–79] and **ANDREWS,** JAMES.

1854–6. Beautiful birds: their natural history; including an account of their structure, habits, nidification, etc. *8vo. 12 col. pl. London.*

This small work appeared in 36 monthly parts, separately paged. It has 12 colored plates and numerous text cuts, and forms one of a large class of popular books on bird life. It was edited by R. Tyas from the late author's manuscript and illustrated by James Andrews.

1854–6. Beautiful birds described, etc. *3 vols. in 1. 12mo. illust. London.*

Issued by another publisher this printing differs from the original edition with colored plates in having a slightly different title and uncolored illustrations.

COUAILHAC, J. J. L., **GERVAIS,** F. L. P., and **LEMAOUT,** E.

1842–3. Le Jardin des Plantes. *See* BERNARD, PIERRE.

COUCH, JONATHAN [1789–1870].

1838–44. A Cornish fauna; being a compendium of the natural history of the county, intended to form a companion to the collection in the museum of the Royal Institution of Cornwall. *3 vols. 8vo.* Vol. I, *pp. vi+5–84.* Vol. II, *pp. viii+76.* Vol. III, *pp. viii+xi–xvii+(1)+164+(8). 23 pl. indexes. Truro.*

In this important work the class Aves are treated in vol. I, pp. 10–30, the annotated list embracing 231 species, none of which, however, are figured in the 23 plates supplied to vol. III.

1847. Illustrations of instinct deduced from the habits of British animals. *8vo. pp. xii+343. T. of c. index. London.*

It is said that in his actions Man is governed by Reason, as Animals are by Instinct; the latter principle being represented as an unreflecting impulse, which, under all circumstances, 'must go right'. In consequence of this mode of regarding the subject many striking displays of intelligent action among animals have been passed over with little or no attention. The object of the author of this book is to try and afford by illustrations a different estimate of the animal creation and the conditions of their intellectual existence.

1862–5. A history of the fishes of the British Islands. *4 vols. illust. 252 col. pl. (incl. fronts.). London.*

The first edition of this celebrated work.

1866–7. A History of the Fishes of the British Islands. 252 col. pl. by the author. *4 vols. Editio altera. London.*

A remarkable production by a medical practitioner with little leisure and laboring under the necessities of a large country practice. This work is regarded as one of the fundamental contributions to British ichthyology. Couch was also a well-known writer on archeology and other departments of natural history. [O.]

1877. History of the Fishes of the British Islands. 252 full-page col. pl. from drawings by the author. *4 vols. 8vo. London.*

The latest printing of a well-known treatise.

COUCH, THOMAS QUILLER [1826–84].

1871. The History of Polperro, etc. *8vo. Truro.*

In this Cornish guide-book the natural history is given. Most of the treatise is said to have been written by Jonathan Couch, a brief account of whose career is furnished. From the Osler Library.

COUDENHOVE, HANS.

[*c.* **1925**]. My African neighbours; man, bird, and beast in Nyasaland. *8vo. pp. xiv+245. front. (portr.). 7 pl. T. of c. London.*

COUES, ELLIOTT [1842–99].

[**1862**]. [Monograph of the Laridae.] Revision of the gulls of North America; based upon specimens in the Museum of the Smithsonian Institution.

Stated to be 'an abstract of a more extended Monograph on the Gulls of North America, prepared for publication in a Government Report'. The 'Monograph' appeared in 1874 as a part of the *Birds of the Northwest* (pp. 589–717). The present copy is from the Godman Library, with book-plate.

1866. Prodrome of a work on the ornithology of Arizona Territory. *8vo. pp. 64. Phila.*

A preliminary list of 245 avian species from Fort Whipple, Arizona; with which are incorporated all other species ascertained to inhabit the territory; with brief critical and field notes, descriptions of new species, etc. Reprinted from the *Proceedings Phila. Acad. Nat. Sc.*

1868. A monograph of the Alcidae. *pp. 81. 18 figs. bibliogr. Philadelphia.*

One of 50 copies separately reprinted from *Proc. Acad. Nat. Sci.*

[**COUES,** E. (*contd.*)]

Phila., January 1868. I. Review of the literature of the family. II. Of the characters of the family, and its subdivisions. III. Descriptions of genera and species. Reprinted in *Zoologist*, v, 1870, pp. 2004 et seq. The present copy is from the Godman Library, with book-plate, being a presentation copy from the author to Prof. S. F. Baird.

1868. A list of the birds of New England. *Salem.*

[**1872**]. Material for a monograph of the Spheniscidae. (*Proc. Acad. Nat. Sci. Phila.*)

Based chiefly on the specimens in the Museums of the Smithsonian Institution, and of the Philadelphia Academy, the former being notable as containing T. R. Peale's types, and the latter the largest collection of Penguins in America. The copious synonymy gives nearly every name, generic or specific, which had at that time been proposed for this group of birds; and each species recognized by the author is fully described, with much critical matter. The present copy is from the Godman Library, being advance proof-sheets of the above paper, sent to the editor of *Ibis* with the author's regards.

1872. Key to North American birds, containing a concise account of every species of living and fossil bird at present known from the continent north of the Mexican and United States boundary. Illustrated by 6 steel plates, and upwards of 250 woodcuts. *4to. pp. (8)+361. front. 5 pl. 238 figs. T. of c. addend. glossary. index.* *Salem.*

Of this popular work there are five editions, the present copy being the first. The scientific accuracy of the author and general style of the book make it valuable as a work of reference.

1873–90. *See* UNITED STATES SURVEY OF TERRITORIES, 1873–90.

1873–4. A Check List of North American Birds. 1st ed. *8vo.*

1874. Field ornithology. Comprising a manual of instruction for procuring, preparing and preserving birds, and a check list of North American birds. *8vo. pp. iv+116+138. 1 fig. T. of c. append.* *Salem.*

Pp. 5–116 contain full instructions for the bird-collector, which information was intended for inclusion in the author's *Key to North American Birds*, 1872, but for want of space had to be omitted from the 1st edition. It was included in the 2nd (1884) and subsequent editions, as well as in the author's *Handbook of Field and General Ornithology*, 1890. The Check List and Supplement is identical with, and merely another form of that work of 1873–4. The present volume is an autographed presentation copy.

1874–89. *See* UNITED STATES. HUNDREDTH MERIDIAN.

1874. A history of North American birds. Land birds. [With tables and glossary by E. Coues.] *See* BAIRD, S. F.

1874. Ornithology of the Prybilov islands (based on H. W. Elliott's manuscripts and collections). *4to. pp. 242–77(?). 2 figs.*

At the head of the first page appears the following note, in the handwriting of the author: 'This is a complete set of proofs, as printed. Of the work of which this article forms part, only 125 copies were printed, owing it is believed, to a "wilful misunderstanding". Work not paged. Bound to open portfolio-wise; with numerous photographic illustrations, dated 1873, published Jan. or Feb. 1874.—E. C.'
Along the side of this sheet appears the following note: 'There is only one other separate copy of this article in existence.'
The present copy is from the Godman Library.

1874. Birds of the Northwest: a handbook of the ornithology of the region drained by the Missouri River and its tributaries. *8vo. pp. xi+(1)+791. append. index.* (Miscellaneous Pub. U.S. Geolog. Survey, No. 3.) *Washington.*

A comprehensive treatment of the subject, with extensive synonymies, distribution of the species, field notes on habits, and descriptions of new species, etc. Estes and Lauriat, in 1877, rebound and reissued 214 copies of the book, with a new title-page but otherwise unchanged, as *Birds of the Northwest*. The work was issued in December 1874 (Coues, *Bibl.*, 1st Instalment, p. 702), presumably after the publication of vol. III of Baird, Brewer, and Ridgway's *History of North American Birds, Land Birds*, 1874, which is quoted in the present work, although both appeared about the same time.

1875. Ornithology [of Kerguelen Island]. *8vo. pp. 10+51. index.* *Washington.*

The above is pt. 1 of Kidder, J. H., 'Contributions to the natural history of Kerguelen Island made in connection with the American Transit-of-Venus Expedition, 1874–75'. Twenty-one species of six families of birds are fully described by the author.

1875. Some account, critical, descriptive, and historical, of Zapus Hudsonius; and on the breeding-habits, nest, and eggs of the white-tailed ptarmigan, Lagopus leucurus. (Bulletin of the United States Geological and Geographical Survey of the Territories, second series, No. V.) *8vo. pp. 4+10.* *Washington.*

1875. *See* BAIRD, SPENCER FULLERTON.

1877. Notes on the Ornithology of the region about the source of the Red River of Texas. *See* MCCAULEY, C. A. H., 1877.

1877. Fur-bearing Animals; a monograph of North American Mustelidae, etc. *8vo. pp. xiv+348. 20 pl.*

1878. *See* SENNETT, GEORGE B.

1878–80. [Bibliography of ornithology.] *4 vols. 8vo.* Vols. 1–3. American ornithological bibliography. 4. Faunal publications relating to British birds. *Wash.*
Part I. Faunal publications relating to North America. Extract from *Misc. Pub. U.S. Geological Survey Terr.* 11, pp. 567–748, 1878. *indexes.*
Part II. Faunal publications relating to the rest of America. Extract from *Bull. U.S. Geol. and Geogr. Survey Terr.* 5, pp. 239–330, 1879.
Part III. Systematic publications relating to American species, arranged according to families. From the *Bull. U.S. Geol. and Geogr. Survey Terr.* 5, pp. 521–1072.
Part IV. Faunal publications relating to British birds. From *Proc. U.S. Nat. Museum*, 2, (1879), 1880.

Four parts only were published although other titles were intended to follow, for the completion of an annotated list of all published works on ornithology. A number of interesting interleaved and bound volumes of all the four parts are in the E.S.W. Library with an A. L. S. from the author in each.
The Compiler of this INTRODUCTION (*Auk*, April 1928) has published a 'Plea for the Continuation of Elliott Coues' Ornithological Bibliography' in which he was ably seconded by the Editor, Dr. Witmer Stone. In part the Compiler remarked:
'No one can consult any of the Instalments of Coues' Bibliography without a mental doffing of the hat to a truly great man. The years of patient drudgery involved in that tremendous undertaking seem to dissolve in the amazement excited by the universal exhibit of the author-compiler's scholarship and erudition. Had Coues lived and if conditions had been favorable, he would, doubtless, have carried to completion his ambitious scheme of a "Universal Bibliography of Ornithology". In this connection one is reminded that, as every one knows, Coues was under considerable obligation to his friend Professor Alfred Newton, of Cambridge, England, for assistance, advice, and encouragement in the preparation of his Bibliography. One of the treasures of the E.S.W. Library of Ornithology in McGill University is an autographed copy from Newton to Dr. Elliott Coues, "with the compiler's kind regards", in 1872, of "Extracts from the Record of Zoological Literature, vols. I–VI, containing the portions relating to Aves from 1864 to 1869". This compilation proved of great help to Coues in assembling data for his great work; and the copy in question is full of his marginal notes and bracketed paragraphs indicating the transference of numerous references whose verbiage one may readily recognize in the pages of the Instalments. There is ample evidence that when Coues decided he would be unable to finish the work so happily and successfully begun he did his best to engage the activities of others to that end. I submit the account of one of these efforts—that unfortunately ended in failure—in the form of a letter that came into my possession with a presentation by the author of the Instalments "to his friend W. Ruskin Butterfield". This communication deals with an arrangement two years before

his death, by Coues with Ruskin Butterfield, to proceed with and complete the publication of the Bibliography, so far as it concerned British birds. For this undertaking, Coues offers every assistance in his power, including the use of his collection of unpublished notes.'

1878. Field notes on birds observed in Dakota and Montana along the forty-ninth parallel during the seasons of 1873 and 1874. (*Bull. U.S. Geol. and Geogr. Survey*, vol. IV, No. 2.) *8vo. pp. 545–661. bibliogr.* *Washington.*

Special notes on 180 species of birds observed by the author during his connection with the United States Northern Boundary Commission in 1873–4.

1879. A check list of North American birds. *8vo. pp. 137.* *Salem.*

A list of species and subspecies recognized by the author, arranged and numbered consecutively from 1 to 635, with an appendix, pp. 123–37. Identical with the issue of 1873–4.

1879. *See* SENNETT, GEORGE B.

1880. Rural bird life; &c. *See* DIXON, CHARLES.

1882. The Coues check list of North American birds. 2nd ed., revised to date, and entirely rewritten, under direction of the author, with a dictionary of the etymology, orthography, and orthoepy of the scientific names, the concordance of previous lists, and a catalogue of his ornithological publications. *4to. pp. 165. addend. append.* *Boston.*

****** and PRENTISS,** D. W.

1883. Avifauna Columbiana: being a list of [248 species of] birds ascertained to inhabit the District of Columbia. 2nd ed. *8vo. pp. 133+(3). front. 1 pl. 4 maps (fold., 3 col.). 100 figs. T. of c. index.* *Washington.*

1884. Key to North American birds. Containing a concise account of every species of living and fossil bird at present known from the continent north of the Mexican and United States boundary, inclusive of Greenland. 2nd ed., with which are incorporated general ornithology . . . and Field ornithology. *8vo. pp. xxx+863. front. (col.). 561 figs. T. of c. index.* *Boston.*

Bears the same general title as the first edition, 1872. Among the innovations, on pp. 1–227 are extended chapters on field ornithology and general ornithology which were published later as a separate work. The chapter on field ornithology was originally published with the 'Check-List' of 1874 as a separate work under the title, *Field Ornithology.*

[**1885**]. On the present status of Passer domesticus in America. With special reference to the western states and territories. *See* GURNEY, J. H.

1885. *See* KINGSLEY, J. S., *ed.*, 1885.

1886. The code of nomenclature and check-list of North American birds adopted by the American ornithologists' Union, being the report of the committee of the Union. *See* AMERICAN ORNITHOLOGISTS' UNION.

1887. Key to North American Birds, etc. 3rd ed. *8vo. pp. x+iv+xi–xxxiii+895. col. front. 561 figs. in text. index.* *Boston.*

Except an appendix (pp. 865–95) and a few minor changes in the text this edition is identical with the 1884 (second) edition.

1890. Key to North American birds. 4th ed. *8vo. pp. xxx+907. front. (col.). 561 figs. T. of c. 2 append. index.* *Boston.*

Printed from the same plates as the third edition (1887) with the addition of a second Appendix, in which are included discoveries and nomenclatural changes made since 1887 to January 1890 inclusive.

1890. Handbook of field and general ornithology, a manual of the structure and classification of birds with instructions for collecting and preserving specimens. *8vo. pp. 6+343. 112 illust. in text. T. of c. index.*

This is a section of the author's 'Key' published separately for the use of students of ornithology in general, and as such forms an admirable and extremely useful text-book.

1896. *See* ROOD, E. IRENE.

1897. Audubon and his journals. *See* AUDUBON, J. J.

1900. Citizen bird; &c. *See* WRIGHT, *Mrs.* M.

1903. Key to North American birds. Containing a concise account of every species of living and fossil bird at present known from the continent north of the Mexican and United States boundary, inclusive of Greenland and Lower California, with which are incorporated general ornithology . . . and field ornithology . . . The 5th ed. *2 vols. 8vo.* Vol. 1, *pp. (2)+xli+(1)+535. front. (col.). 1 pl. (portr.). 353 figs. T. of c.* Vol. 2, *pp. vi+537–1152. front. (col.). 394 figs. T. of c. append. index.* *Boston.*

Published after the death of the author, from manuscript left by him, and with a short appendix listing the species recognized by the American Ornithologists' Union after the completion of the manuscript. This appendix is presumably by J. A. Farley who edited the manuscript of the work.
There is a portrait of Coues in vol. 1, and a necrology of him by Elliot.

1927. Key to North American Birds, containing an Account of Every Species of Living and Fossil Bird at present known from the Continent, North of the Mexican and United States Boundary, inclusive of Greenland and Lower California. With which are incorporated, General Ornithology: An Outline of the Structure and Classification of Birds; and, Field Ornithology: A Manual of Collecting, Preparing and Preserving Birds. *2 vols. 8vo. pp. 1,152. col. front. 750 fine illust.* *Boston.*

Sixth Revised Edition, with the nomenclature of the American Ornithologists' Union, and including descriptions of additional species.
By many museums and large institutions considered the most useful of American bird books. Preceding the descriptions of species is found a manual of instruction for collecting, preparing, and preserving birds; structure and classification of birds, anatomy of birds, etc.

COULTER, JOHN G., **COULTER,** J. M., and **PATTERSON,** A. J.

1909. Practical nature study and elementary agriculture, &c. *See* COULTER, J. M.

COULTER, JOHN MERLE [1851–], **COULTER,** JOHN G., and **PATTERSON,** ALICE JEAN.

1909. Practical nature study and elementary agriculture; a manual for the use of teachers and normal students. *8vo. pp. ix+(1)+354. T. of c. index.* *New York.*

COUNTRY NOTES; A Journal of Natural History. 1882–3. *Manchester, Eng.*

COUPER, WILLIAM.

1867. Ornithology and oölogy of New England. *See* SAMUELS, EDWARD AUGUSTUS, 1867.

1868. Investigations of a naturalist between Mingan and Watchicouti, Labrador. *8vo. pp. 14.* *Quebec.*

An interesting account of a trip along the coast during the summer

[**COUPER,** W. (*contd.*)]

of 1867, for the purpose of identifying, collecting, and studying the eggs of birds found breeding on the coast, and as far as could be ascertained, in the interior of the country.

1870. The birds of New England, etc. *See* SAMUELS, EDWARD AUGUSTUS.

1881–3. *See* CANADIAN SPORTSMAN AND NATURALIST.

1883. Our northern and eastern birds. *See* SAMUELS, EDWARD AUGUSTUS, 1883.

COURCELLES, PAULINE DE.

1808–11. *See* KNIP P. [and TEMMINCK, C. J.].

COURTHOPE, WILLIAM JOHN [1842–1913].

1889. The paradise of birds. New ed. Illust. by Lancelot Speed. *4to. pp. xii+136. 28 figs.* *London.*

An attempt to deal in poetry with the incidents and theories of the day. The ablest modern Aristophanic satire, most charming in its bird-references. The first edition was issued in 1870, and although conditions had altered in 1889, the text has in no way been changed. The present copy is from the Mullens Library.

COWAN, WILLIAM DEANE.

1881. List of Madagascar Birds, etc. *4to.* (Wanting.) *Antanarivo.*

COWARD, THOMAS ALFRED, *ed.* [1867–], and **others.**

1910. The vertebrate fauna of Cheshire and Liverpool Bay. Two volumes. Vol. I, The Mammals and Birds of Cheshire, by T. A. Coward and C. Oldham; vol. II, The Dee as a Wildfowl Resort, by John A. Dockray. Illust. by Thomas Baddeley. Liverpool Bay. *2 vols. 8vo.* Vol. I, *pp. xxxii+472. front. 33 pl. T. of c. index.* Vol. II, *pp. xl+210. front. 19 pl. 1 map (fold.). 1 fig. T. of c. bibliogr. index.* *London.*

The present work is an attempt to give an historical and distributional account of the vertebrates of Cheshire. The portion devoted to 'The birds of Cheshire', will be found in vol. I, pp. 93–459, with 18 illustrations; and again in vol. II, pp. xxi–xl, 'The Dee as a Wildfowl Resort', with three illustrations. A copious bibliography will be found in vol. II, pp. 171–204. An earlier work on the birds of Cheshire was published by Coward and Oldham in 1900.

1911–13. The British bird book, &c. *See* KIRKMAN, F. B.

1912. The migration of birds. *12mo. pp. 10+137. 4 maps. T. of c. bibliogr. index.* *Cambridge.*

A popular treatise compiled from various authors. Gätke is more or less criticized, while the statements of other authors are treated as facts. The bibliography is by no means complete, and there are many grammatical errors in the text.

1919. The Birds of the British Isles and their Eggs, 242 col. illust. by Thorburn and others, 65 illust. of birds and their nests by Kearton and others.

First printing of this popular treatise.

1920. The birds of the British Isles and their eggs. *4to. pp. 7+376. 242 col. pl. T. of c. index.* *London and New York.*

This practical, popular guide to the avifauna and oology of the British Isles has passed through more than one edition. The reduced plates from Lilford's 'Coloured figures' add greatly to its value. The present volume is a copy of the first edition printed in December 1919, but not published until February 1920.

1922. Bird haunts and nature memories. Front. by Archibald Thorburn; photo. illust. *8vo. pp. 10+214. 23 pl. T. of c. index.* *London.*

Charming essays and written in a popular style, several reprinted from magazines.

1923. Birds and their young; illust. by Roland Green. *4to. pp. 8+151. 12 col. pl. 32 figs. in text. index.* *London.*

1923. Life of the wayside and woodland; when, where, and what to observe and collect. *12mo. pp. viii+216. front. (col.). 47 pl. (col., 12 birds). 63 pl. (3 birds). index.* *London.*

Supplementary to volumes already published in *The Wayside and Woodland Series.*

1926. The birds of the British Isles and their eggs. Second series comprising families *anatidae* to *tetraonidae* with 213 accurately coloured illustrations by Archibald Thorburn and others reproduced from Lord Lilford's work 'Coloured figures of the Birds of the British Islands', and 69 photo. illust. by E. L. Turner, R. Kearton and others. 3rd ed. *12mo. pp. viii+376. index.* *London.*

A very useful and well-illustrated manual on the subject.

1926. The birds of the British Isles. Third series comprising their migration and habits and observations on our rarer visitants. *12mo. pp. ix+308. 68 col. pl by Thorburn et al. 68 photo. pl. col. front. T. of c. index.* *London.*

A popular work with many colored illustrations reproduced from Lilford's *Birds of the British Islands.*

1927. Bird life at home and abroad with other nature observations. *8vo. pp. 12+237. col. front. 24 photo. illust. T. of c. index.* *London.*

COX, HARDING.

1923. 'Dogs and I'. *8vo. front. 73 illust.* *London.*

Popular and well-illustrated book on the principal pet species.

COX, NICHOLAS.

1674. The gentleman's Recreation. *1 vol. 8vo.* (Wanting.) *London.*

COXE, WILLIAM [1747–1828].

1787. A comparative view of the Russian discoveries with those made by Captains Cook and Clerke, and a sketch of what remains to be ascertained by future navigators. *4to. pp. 31.* *London.*

Many references to the faunal life encountered in famous world cruises. Rare; not in *Cat. Br. Mus.* (*Nat. Hist.*).

CRABTREE, J. H.

1924. A practical guide to nature study by woodland, field, pond and shore. *8vo. pp. 190. front. 11 pl. T. of c.* *London.*

CRAIG, WALLACE.

1909. The expressions of emotion in the pigeons. I. The blond ring dove (*Turtur risorius*). *8vo. pp. (2)+29–80+(2). 1 pl. (6 figs.). T. of c.* *Granville.*

Thesis for the degree of Ph.D. University of Chicago. Reprinted from the *Journal of Comparative Neurology and Psychology,* 1909.

CRAM, W. E.

1902. *See* STONE, WITMER, 1902.

1918. *See* STONE, WITMER, 1918.

CRANCH, JOHN.

1818. A general notice of the animals taken . . . during the expedition to explore the . . . river Zaire. *See* TUCKEY, J. K.

CRANDALL, LEE SAUNDERS [1887–].
1917. Pets, their history and care. With illustrations from life. *8vo. pp. xii+372. front. 31 pl. T. of c. bibliogr. index.* *New York.*
Several of these interesting chapters had already appeared in various publications. The book is divided into four sections: (1) Mammals; (2) Birds; (3) Reptiles and Batrachians; (4) The Aquarium.

CRANZ, DAVID [1723–77].
1782. Historie von Groenland. 2nd ed. *8vo.* *Leipzig.*
There is also an English edition, in 2 vols., translated by J. Gambold, London, 1767.

CRAVERI, MICHELE.
1926. *See* FIGUIER, G. L., 1926.

1927. Atlante ornitologico. Uccelli italiani. *4to. n.p. 50 col. pl.* *Milano.*
An excellent atlas of Italian birds, well illustrated in color with some 300 figures, each plate accompanied by descriptive letterpress.

CRAWFORD, JAMES HUNTER.
1896. Wild Life of Scotland. *8vo.* (Wanting.) *London.*

CRAWFURD, OSWALD JOHN FREDERICK, *ed.*
1895. A Year of Sport and Natural History . . . with chapters on Birds of Prey, the nidification of Birds, and the habits of British Wild Birds and Animals. [By J. M. Brown and others.] *4to. pp. xii+331. 33 pl. text illust.* *London.*
The plates are paged in with the text.

CRAWSHAY, *Capt.* RICHARD.
1907. The birds of Tierra del Fuego. *4to. pp. xl+158. front. 43 pl. (21 col.). 1 map (col.). 1 fig. index.* *London.*
An excellent account of birds collected by the author in 1904, with notes on habitat, nidification, descriptions of their coloration, etc. Three hundred copies were printed, the present one being No. 113.

CREFELD. Naturwissenschaftliches Museum.
?1909–19. Mitteilungen.

CRERAR (JOHN) LIBRARY.
1902. List of bibliographies of special subjects. *4to. pp. 504.* *Chicago.*
A valuable work of reference for students of zoology.

CRESPON, J.
1840. Ornithologie du Gard et des pays circonvoisins. *8vo. pp. (4)+xvi+567+(1). index.* *Nismes.*
Of 500 species of birds known in Europe, the author has described 321 from the department of the Gard in Provence. The work was published by subscription and dedicated to Isidore Geoffroy Saint-Hilaire.

1844. Faune méridionale . . . de France, etc. *2 vols. in 1. 8vo. atlas. 73 pl.* *Nismes.*

CRESSWELL, RICHARD.
1862. Aristotle's History of Animals. *See* ARISTOTLE, 1862.

CRETCH, W. D.
1851. The Birds of Somersetshire. No. 1 (all pub.). *8vo. pp. 24. 4 pl.* (Wanting.) *Taunton.*

CRETZSCHMAR, PHILIPP JAKOB, *ed.*
1826. Säugethiere. *pp. 78. pl.* (*Senkenbergische naturforschende Gesellschaft, Atlas zu der Reise im nördlichen Afrika,* vol. [1].) *See also* RÜPPELL, W. P. E.
Frankfurt a. M.

CREW, FRANCIS ALBERT ELEY [1888–].
1925. Animal genetics; an introduction to the science of animal breeding. (Biological monographs and manuals.) *8vo. pp. xix+(1)+420. 67 figs. (1 col.). T. of c. bibliogr. 2 indexes.* *Edinburgh.*

CRICHTON, ANDREW [1790–1855].
1835. Memoir of Pliny. *See* SELBY, P. J.

1837. Memoir of Bruce. Memoir of Le Vaillant. *See* SWAINSON, W.

CRIDDLE, NORMAN.
1920. The birds of a Manitoba garden. *12mo. pp. 7.* [*Ottawa.*]

CRIGHTON, ARTHUR W.
1886. A Naturalist's Rambles in the Orcades. (Wanting.)

CROATIAN (SLAVONIAN) ORNITHOLOGICAL SOCIETY, YEAR-BOOK OF THE.
See HRVATSKA ORNITHOLOŠKA CENTRALA.

CROMMELIN, J. P. VAN WINCKEVOORT.
[**1863**]. Notice sur les canards observés en Hollande. *8vo. pp. 7.* *Harlem.*
A short brochure on the wild ducks observed in Holland.

CRONAU, C.
1880. Die Hühnervögel mit besonderer Rücksicht auf ihre Pflege und Zucht in der Gefangenschaft. With atlas. Vol. I, pt. I. *pl.* Vol. II, pt. 1. *pl.* *Berlin.*
The work deals with the feeding, rearing, housing, and acclimatization of fowls and pheasants. The Atlas has colored plates of Reeves' Pheasant, and Amherst's Pheasant, with numerous plans of pheasant-runs and hen-coops. It is a rare book.

1884. Die Fasanen, etc. *4to. pp. iv+155. 4 pl.* *Strassburg.*

CRONISE, TITUS FEY.
1868. The natural wealth of California; comprising . . . zoology and botany, etc. *8vo. pp. xvi+696. front. 15 pl. T. of c. index.* *San Francisco.*
An important history with a full treatment of the natural history. The portion treating of birds will be found on pp. 448–80. Not in *Cat. Br. Mus. (Nat. Hist.).*

CRONWRIGHT-SCHREINER, SAMUEL CRON [1863–].
[**1925**]. The migratory springboks of South Africa (the Trekbokke); also an essay on the ostrich. *12mo. pp. 140. front. 4 pl. T. of c.* *London.*

CROWLEY, PHILIP.
1883. A list of Birds' eggs in the collection of Philip Crowley. *8vo. pp. 96.* *Croydon.*
A list representing nearly 2,400 species. The numbers before the specific names refer to Gray's *Hand-List of Birds.* No vernacular names are given.

CROYDON NATURAL HISTORY AND SCIENTIFIC SOCIETY.
1870–*date*. Proceedings and Transactions.

CRUTTWELL, Alfred C.
n.d. A complete table of the animal kingdom; arranged in their divisions, classes, orders, sub-orders, and families. With the meaning of scientific names, and common examples of each. *8vo. pp. 24.* *Frome.*

CSATÓ, János.
1896. Alsófehér varmegye növeny- és állatvilága. *4to. pp. 138.* *Nagy-Enyed.*

CSÖRGEY, Titus.
1905. Ornithologische Fragmente aus den Handschriften von J. S. von Petényi. Deutsch bearbeitet von T. Csörgey, &c. *See* PETÉNYI, S. J.

CUBE, Johann von. *See* HORTUS SANITATIS, 1517, and CAUB, JOHANN WONNECKE VON.

CULLIMORE, Daniel Henry.
n.d. [The flora and fauna of Upper Burma.] *folio. n.p. 435 pl.* A collection of original colored drawings.
The collection consists of 435 beautiful original colored drawings, probably intended for a publication on Upper Burma, but they were never published. Eighteen of them are of birds. Cullimore's published works are on medical subjects.

CUMBERLAND, George [1754–1848].
n.d. [Studies from nature, in various branches of natural history.] *4to. no t.-p. unp. pl.*
Scrap-book containing 310 original sketches and drawings, some colored, and many very beautifully executed. Seventeen of them are of birds. In most cases MS. notes accompany the drawings which were presented by the father to his son Sydney.

CUMBERLAND AND WESTMORELAND ASSOCIATION FOR THE ADVANCEMENT OF LITERATURE AND SCIENCE. *Keswick, Carlisle.*
1875–92? Transactions.

CUMING, Edward William Dirom [1862–].
1913–14. (The) Bodley Head natural history with illust. by J. A. Shepherd. *2 vols. 12mo.* Vol. I, *pp. 120+(3). front. (col.). 2 pl. (col.). 226 figs. (col.). T. of c.* Vol. II, *pp. (16)+17–122. front. (col.). 1 pl. (col.). 186 figs. (col.). T. of c. London.*
A popular account of passerine British birds, illustrated by drawings from life.
1929. *See* BLOME, RICHARD.

CUMMING, C. F. G.
1892. Two Happy years in Ceylon. 4th ed. *2 vols. 8vo.* (Wanting.) *London.*

CUNNINGHAM, David Douglas [1843–].
1903. Some Indian friends and acquaintances; a study of the ways of birds and other animals frequenting Indian streets and gardens. *8vo. pp. viii+(2)+423. front. (col.). 23 pl. T. of c. append. index.* *London.*
The book (the observations of a thirty-year resident) is divided into three headings: (1) Common birds of an Indian Garden; (2) Common mammals of an Indian Garden; (3) Common reptiles of an Indian Garden.

CUNNINGHAM, Joseph Thomas [1859–].
1890. A treatise on the common sole (*Solea vulgaris*). *folio. pp. 8+148. 18 pl.* *Plymouth.*
1896. The natural history of the marketable marine fishes of the British islands. With a preface by E. Ray Lankester. *pp. xvi+375. illust. 2 fold. maps.* *London, New York.*
1900. Sexual Dimorphism in the Animal Kingdom. *8vo. pp. xi+317. text illust.* *London.*
1901. *See* SCHMEIL, F. O., 1901.
1912. *See* LYDEKKER, R. [and others], 1912.

CUNNINGHAM MEMOIRS. *See* ROYAL IRISH ACADEMY.

CUNNINGHAM, Robert Oliver.
1871. Notes on the natural history of the Strait of Magellan and west coast of Patagonia made during the voyage of H.M.S. 'Nassau' in the years 1866, 67, 68, & 69. *8vo. pp. xvi+(2)+517. front. (col.). 20 pl. (4 col.). map (col. fold.). T. of c. index.* *Edinburgh.*

CUNRAT (von Megenberg) [1309–78]. *See* MEGENBERG, KONRAD VON.

CURAÇOA, VOYAGE OF THE.
1873. *See* BRENCHLEY, JULIUS LUCIUS.

CURLEW, THE. Pubd. monthly by O. P. Hanger & Co., Orleans, Indiana, for the Wilson Chapter A.[gassiz] A.[ssociation]. Editors: J. B. Richards, Pres., and Lynde Jones, Secy. *16mo.* Frank Burns notes: Vol. I, Nos. 1–7, Oct. 1888–April 1889. *pp. 63.* [All issued.]
The first few numbers of this small periodical figured as the organ of the Young Ornithologists' Association. Among its contributors of (short papers) are the editors, R. M. Strong, E. P. Carlton, W. A. Nuller, *et al.*

CURRENT ITEMS OF INTEREST.
1908–18. (Prepared by Henry Oldys.)
Organ of the Audubon Society of the District of Columbia. *8vo. 4-page leaflet.* *Silver Spring, Md.*
These useful leaflets (publication suspended) did much to spread the doctrines of bird protection and culture throughout the United States, and were in addition a record of the same work abroad. *Current Items* was a steadfast opponent of the slaughter of exotic birds and the introduction of their plumage into this country.

CURTIS, Winterton Conway [1875–] and **GUTHRIE,** Mary J.
1927. Textbook of general zoology. *8vo. pp. xv+(1)+585. 308 figs. T. of c. index.* *New York.*
The present volume is based on the course in General Zoology, University of Missouri.

CURTISS, R.
1924. An account of the natural history of New England and of Nova Scotia and Lower Canada . . . as it applies to beasts, birds, reptiles, whales, fresh and salt water fish and shell fish, worms, insects and pests. 2nd ed. *12mo. pp. 122.* *New York.*
An interesting, well-written account of the matter set forth on the title. Not in the *Cat. Br. Mus.* (*Nat. Hist.*).

CURWEN, Henry.
1873. A History of Booksellers. *8vo.* *London.*
Very useful for all librarians and bibliographers.

CURZON, Robert.
1854. Armenia, etc. *8vo.* *N.Y.*

CUTMORE, J. W. and **others.**
n.d. Ailing cage birds and how to cure them. An account of the troubles which beset captive birds, with the treatment and list of medicines to restore [them to] health. *24to. pp. 27.* *London.*

CUVIER, GEORGES FRÉDÉRIC [1773–1838].

1804-30. Dictionnaire des Sciences Naturelles. *60 vols. 8vo.*

**** and **GEOFFROY-SAINT-HILAIRE,** É. [**1818**]–**42.** Histoire naturelle des Mammifères. *4 vols. col. pl. See also* GEOFFROY-SAINT-HILAIRE, É. *Paris.*

A fundamental authority on mammals, with fine plates; of great value to any research library.

1831–2. Supplément à l'histoire générale et particulière de Buffon offrant la description des mammifères et des oiseaux les plus remarquables découverts jusqu'à ce jour, et accompagné de gravures. *2 vols. 8vo. portr. pl. Paris.*

The colored illustrations are in some instances rather crudely executed, and the figure of the Common Grey Crow of Ceylon and India (*Corvus splendens*) is by no means typical. This species is not figured in Legge's *Birds of Ceylon*, nor does he indicate where a figure of it is to be found.

1836. De l'histoire naturelle des cétacés, ou Recueil et examen des faits dont se compose l'histoire naturelle de ces animaux. *8vo. pp. 4+416. 24 pl. Paris.*

One of Roret's 'Suites à Buffon'.

CUVIER, GEORGES LÉOPOLD CHRÉTIEN FRÉDÉRIC DAGOBERT, *Baron* [1769–1832].

1798. An VI. Tableau élémentaire de l'histoire naturelle des Animaux. *8vo. pp. 16+710. 14 pl. Paris.*

This is the first considerable work on Zoology written by the celebrated Baron Cuvier. It has been frequently translated and formed a foundation for future editions and other treatises. Most of the subsequent important treatises of the great naturalist (more or less based on this volume) are listed below.

1800. Elementarischer Entwurf der Naturgeschichte der Thiere; aus dem Französischen übersetzt und mit Anmerkungen versehen von C. R. W. Wiedemann. *2 vols. 8vo. Berlin.*

An early German translation of Baron Cuvier's early treatise.

1805–37. *See* HUMBOLDT and BONPLAND, 1805–37.

1812. Recherches sur les Ossemens Fossiles de Quadrupèdes, etc. *4 vols. 4to. illust. Paris.*

This is the first of numerous editions (and translations) of an important work, itself mostly reprinted from the *Ann. Mus. Hist. Nat. Paris.*

1817. Le règne animal distribué d'après son organisation, pour servir de base à l'histoire naturelle des animaux et d'introduction à l'anatomie comparée. *4 vols. many pl. Paris.*

A famous treatise on the whole animal kingdom, the vertebrate zoology of which was written by the author himself. A second edition appeared in 1829, and there were, also, several translations.

1821–5. Das Thierreich eingetheilt nach dem Bau der Thiere als Grundlage ihrer Naturgeschichte und der vergleichenden Anatomie; aus dem Französischen frey übersetzt und mit vielen Zusätzen versehen von H. R. Schina. *4 vols. 12mo. Stuttgart.*

A faithful German translation, with additions, of Baron Cuvier's *Règne animal.*

1826–8. Histoire des Progrès des Sciences Naturelles depuis 1789. *4 vols. 8vo. Paris.*

The first edition of this essay (presented to the *Académie des Sciences*) appeared in 1810.

1827–35. The animal kingdom arranged in conformity with its organization, with additional descriptions of all the species hitherto named, and of many not before noticed, by Edward Griffith . . . and others. *16 vols. 8vo. many col. illust. London.*

This work was issued in parts and published in 15 volumes, with an extra one containing a classified Index and Synopsis, of which vols. VI–VIII are devoted to birds, the specific descriptions of the species being written by E. Griffith and E. Pidgeon, except for the additional species inserted in the text of Cuvier for which J. E. Gray is responsible. The illustrations consist of 142 colored and 10 uncolored plates. An abridged translation in one volume adapted to the present state of science was brought out in [1849] and again in 1851, the portion relating to the birds being written by Edward Blyth. Another edition, also in one volume but with the title 'Cuvier's Animal Kingdom', appeared in 1840, having 10 uncolored plates and 66 figures in the text.

**** and **VALENCIENNES,** A.

1828–49. Histoire naturelle des Poissons. *22 vols. 8vo. illust. Paris.*

The early French authority on ichthyology and a necessary work of reference in a research library.

1829–30. Le règne animal, distribué d'après son organisation. Nouvelle édition, rev. et augmentée. *5 vols. 8vo. pl. Paris.*

1830. Naturgeschichte und Abbildungen der Vogel-Gattungen, &c. [based on Cuvier's Règne animal]. *See* SCHINZ, H. R.

1831–43. Das Thierreich geordnet nach seiner Organisation . . . Nach der 2ten., vermehrten Ausgabe übersetzt und durch Zusätze erweitert von F. S. Voigt. *6 vols. 8vo. Leipzig.*

1834. The Animal Kingdom, etc. Tr. by H. McMurtie. *4 vols. 8vo. pp. 20+508. London.*

There seems to have been an earlier printing (1831) of this translation published in New York, but the Compiler has not seen it.

1834–6. Recherches sur les ossemens fossiles, où l'on rétablit les caractères de plusieurs animaux dont les révolutions du globe ont détruit les espèces. 4e éd. *10 vols. fold. tab. and atlas of 2 vols. front. (portr., vol. 1). 260 pl. (part col.). Paris.*

Vol. 1 contains his 'Discours sur les révolutions de la surface du globe, et sur les changements qu'elles ont produits dans le règne animal', with 'Appendice . . . Détermination des oiseaux nommés ibis par les anciens Égyptiens'. The 'Discours', etc., is also published separately, with and without the 'Appendice', and at various subsequent dates.

1835–46. Leçons d'anatomie comparée, etc. 2nd ed. *8 vols. 8vo. Paris.*

1836–49. Le Règne Animal distribué d'après son organisation, etc. (3rd ed.) *17 vols. 4to. col. pl. Paris.*

This is the celebrated 'Disciples' edition, issued in 262 *livraisons* and written in collaboration with several well-known zoologists. The mammals were treated, in 2 vols. with col. pl., by Edwards, Laurillard, and Rollin; birds (also 2 vols.) by A. d'Orbigny; reptiles (1 vol.. 46 col. pl.) by Duvernoy, and fishes (2 vols., col. pl.) by A. Valenciennes. For minute collation *see* Library of Congress Cards.

1838–43. Le règne animal, etc. *2 vols. Paris.*

One of several reprints of the second or third edition.

1840. Cuvier's Animal kingdom, arranged according to its organization; forming the basis for a natural history of animals, and an introduction to comparative anatomy. *Mammalia*, birds and reptiles, by Edward Blyth; fishes by Robert Mudie. *8vo. pp. vii+670. front. 26 pl. 351 figs. T. of c. 2 indexes. London.*

A complete Cuvier, with original remarks of collaborators within brackets.

[**1840**]. Le règne animal distribué d'après son organisation. (IV:) Les poissons. 2 tomes. Avec 120 planches coloriées. *Paris.*

The fourth volume [probably] of the 'Disciples Edition' by A. Valenciennes, separately issued.

[**CUVIER,** G. L. C. F. D., *Baron (contd.)*]

1841–5. Histoire des sciences naturelles, depuis leur origine jusqu'à nos jours. *5 vols. 8vo. Paris.* Vols. 3–4: Commencée au Collège de France par Georges Cuvier, complétée par M. Magdaleine de Saint-Agy.

1844. Classified Index and Synopsis. *8vo. London.*

The appendix, separately issued and dated, to the 1827–35 edition.

1845. Briefe an C. H. Pfaff aus den Jahren 1788 bis 1792, naturhistorischen, politischen und literarischen Inhalts; nebst einer biographischen Notiz über G. Cuvier von C. H. Pfaff. *8vo. pp. 16+310. portr. 6 col. pl. Kiel.*

1849. The animal kingdom arranged after its organization, forming a natural history of animals, and an introduction to comparative anatomy; tr. [from the Fr.] and adapted to the present state of science. New ed., with additions by W. B. Carpenter and J. O. Westwood. *4to. pp. 10+718. illust. pl. London.*

Several reprints of this edition were issued at various dates by various publishers.

1849. The Animal Kingdom, etc. *300 wood and 34 steel engr. London.*

A reissue of the last work by a different publisher.

1851. The animal kingdom, etc. *8vo. pp. 10+718. front. (col.). 32 pl. (28 col.). 381 figs. T. of c. append. 3 indexes. London.*

Another printing of the 1840 edition, by Carpenter and Westwood.

1863. The animal kingdom, arranged after its organization, etc. *4to. pp. 22+706. illust. pl. London.*

Still another printing of Carpenter and Westwood's translation, 1840.

CYMMRODORION SOCIETY. (THOS. PENNANT.)

1766. The British Zoology. Class I. Quadrupeds. II. Birds, etc. *folio. pp. 10+162+4. 132 col. pl. London.*

This society, founded in 1751, published Pennant's treatise, first the main work, with nine colored plates of mammals and 92 of birds, the remainder appearing as an Appendix. *See* PENNANT, THOS.

CYRILLUS, THESSALONENSIS.

ca. **1475.** Speculum sapientiae. *Basel.*

An early incunable with natural history interest.

CZYNK, EDWARD [1851–99].

1897. Das Auerwild, seine Jagd, Hege und Pflege. *8vo. pp. [4]+162. 41 illust. 3 double pl. T. of c. Neudamm.*

A complete account of the Black Cock as found in Middle and South Europe.

D.****, *Madame.*

1813. Cabinet du petit naturaliste. *12mo. pp. 220. illust. pl.*

A child's natural history of little scientific interest but a very rare item—not in most libraries.

DABBENE, R.

1912. Contribuciones à la ornitologia del Paraguay. Notas sobre las Aves coll. en Villa Rica per F. Posmer. *4to. pp. 108.*

DADAY, E. VON J. *See* BUDAPEST, 1900.

DAGLISH, ERIC FITCH [1894–].

1925. Woodcuts of [20] British birds; with descriptions by the artist. *4to. pp. 165. 20 pl. T. of c. London.*

The above is the first edition; another was published shortly after.

1928–9. Animals in black and white. *6 vols. 8vo. illust. New York.*

CONTENTS. Vol. 1. The larger beasts. 2. The smaller beasts. 3. The larger birds. 4. The smaller birds. 5. Reptiles. 6. Fishes and sea animals.

A popular but accurate account of many interesting species of world fauna.

DAHL, CARL FRIEDRICH THEODOR [1856–].

1912. Leitfaden zum Bestimmen der Vögel Mittel-Europas, ihrer Jugendkleider und ihrer Nester, nach leicht und sicher erkennbaren Merkmalen. *8vo. pp. 162. 55 figs. in text. T. of c. index. Berlin.*

Chiefly a memoir on the birds inhabiting Central Europe, including a description of the species with their nests.

1925–9. Die Tierwelt Deutschlands und der angrenzenden Meeresteile nach ihren Merkmalen und nach ihrer Lebensweise. *16 vols. 4to. illust. Jena.*

A voluminous treatise on the fauna of Northern and Central Europe.

n.d. Die biokonotische Stellung der Vögel. *4to. pp. 9. 6 figs. in text.* ('Nerthus', illustrirte Zeitschrift für volkstümliche Naturkunde.)

A study of the reptilian and intermediate ancestors of birds. One of a series of separates from a rare periodical. From Professor Reichenow's library.

DAHL, SVEND [1887–].

1910. Bibliotheca zoologica Danica 1876–1906; Fortegnelse over Danmarks Zoologiske Literatur 1876–1906. *8vo. pp. 22+262. København.*

A valuable bibliography of Scandinavian zoology.

DAHLGREN, ULRIC [1870–] and **KEPNER,** W. A.

1928. A text-book of the principles of animal histology. *8vo. pp. 14+515. illust. New York.*

DAKIN, WILLIAM JOHN [1883–].

1927. The elements of general zoology; a guide to the study of animal biology. *8vo. pp. xvi+496. 252 figs. T. of c. append. index. London.*

The author adopts an unusual method of approach to the subject, and refutes the statement that zoology does not readily lend itself to experiment. References to birds are numerous.

D'ALBERTIS, LUIGI MARIA [1841–].

1881. New Guinea; what I did and what I saw. 2nd ed. *2 vols. num. pl. (4 col. birds). London.*

DALGLIESH, GORDON.

1907. Familiar Indian birds. *8vo. pp. 8+69. figs. in text. London.*

A popular little book with a pleasing account of common Indian birds.

DALL, WILLIAM HEALEY [1845–1921] and **BANNISTER,** H. M.

1867–9. List of the birds of Alaska, with biographical notes. *4to. pp. 267–324. pl. (col.) XXVII–XXXIV. 1 fig. [Chicago.]*

A photostat copy from the *Transactions of the Chicago Academy of Sciences*, i, pp. 267–324. One of the rarest works on American

ornithology. Not over 50 copies with title were issued, and of these more than half were destroyed by the Great Fire in 1870. The colored plates drawn by Edwin Sheppard are very fine, most of them contributed by citizens of Chicago.

1870. Alaska and its Resources. *Boston.*

1874. Notes on the avifauna of the Aleutian Islands, especially those west of Unalaska. *8vo. pp. 12. n.p.* From the *Proceedings of the Cal. Acad. Sci.*; printed in advance March 14th, 1874. *San Francisco.*

Observations made during the season of 1873, on board the United States Coast Survey cutter 'Yukon', engaged in surveys among the Aleutian Islands. The annotated list embraces 45 species.

1915. Biography of Spencer F. Baird, etc. *See* BAIRD, S. F. *Phila.*

DALLAS, WILLIAM SWEETLAND [1824–90].

1856. A natural history of the animal kingdom; being a systematic and popular description of the habits, structure, and classification of animals, from the lowest to the highest forms. Arranged according to their organization. *4to. pp. 817. col. front. illust.*

Reissue, with new t.-p., of a portion of vols. 2 and 3 of Organic nature, the 3rd and 6th volumes of Orr's *Circle of the sciences*, 1854–6.

1857. Zoology; being a systematic account of the general structure, habits, instincts, and uses of the principal families of the animal kingdom. *See also* CARPENTER, W. B.

1860. A natural history of the animal kingdom. *8vo. pp. [2]+818. illust. London.*

1867. Pterylography. *See* NITZSCH, CHRISTIAN LUDWIG.

****** and others.**

[**1868**]. The museum of natural history; being a popular account of the . . . various departments of the Animal kingdom. *See* RICHARDSON, *Sir* J.

n.d. Short studies from nature by various authors. *8vo. pp. vi+336. front. (col.). 48 figs. T. of c. index. London.*

A series of studies in Zoology, one of which is entitled 'Birds of passage', with three figures in the text.

DALTON-BURGESS, M. A.

1926. Catalogue of birds in the aviary of the late Mrs. M. A. Dalton-Burgess, Clifton. *4to. pp. 8. illust. front. Bristol.*

A valuable list, since it gives not only the systematic but the dealers' names for the numerous birds—mostly Psittaci—in one of the largest and best-known private aviaries in England.

DAMIRI.

1868. Hayatu'l-haywan. A zoological encyclopedia in Arabic. *2 vols. in 1. folio. n.p. num. marginal and textual cuts. lithog. Tehran, Persia.*

A fine and rare copy of the medieval original, which has been translated into several languages including English; most editions are in the Blacker Library.

DAMPIER, WILLIAM [1652–1715].

1697. A new voyage round the world, describing particularly, the isthmus of America, etc. Illust. *12mo. pp. vi+550. front. (map fold.). 4 maps (3 fold.). T. of c. London.*

The *editio princeps* of at least eight editions of these famous voyages, most of which are listed in this Catalogue. There are many references to birds scattered throughout the volume but no illustrations (as in the Masefield's edition). The volume is rare; no copy in the *Cat. Br. Mus. (Nat. His.).*

1703–5. A new Voyage round the World. 5th ed. Voyages and Descriptions: Supplement to the Voyage round the World, etc. *2 vols. 8vo. general index.*

Editio altera, with the supplements, of this celebrated treatise. It is one of the scarce printings.

1780. The Voyages, 1680–1705, of Capt. Dampier. Edited by J. H. Moore. (Wanting.)

One of the best accounts of the naturalist's numerous expeditions.

1906. Dampier's Voyages. Consisting of a New voyage round the world, a supplement to the Voyage round the world, Two voyages to Campeachy; a Discourse of winds, a Voyage to New Holland, and a Vindication, in answer to the chimerical relation of William Funnell. Edited by John Masefield. *2 vols. 8vo.* Vol. I, *pp. ix+(1)+611+(1). front. (portr.). 5 maps (fold.). T. of c.* Vol. II, *pp. vii+(1)+623+(1). 15 pl. 6 maps (fold.). T. of c. 2 indexes. London.*

Probably the most complete of all the editions. The text used for the *New Voyage round the World* (1679–91), etc., is that of the sixth edition, and for the *Voyage to New Holland* that of the edition of 1729. Both volumes abound with references to birds. The four plates contain 10 illustrations of the most curious species.

1927. A new voyage round the world, with an introduction by Sir Albert Gray. *pp. xxxvii+376. illust. (incl. facsims.). portr. maps (part fold.). London.*

With reproductions of title-pages of the 1st and 7th editions. Edited by N. M. Penzer.

DANA, JAMES DWIGHT [1813–95].

1863–4. I. On parallel relations of the classes of vertebrates, and on some characteristics of the reptilian birds. II. The classification of animals based on the principle of cephalization [1]–3. III. Note on the position of amphibians among the classes of vertebrates. *3 vols. in 1. 8vo. illust. New Haven.*

Autographed copy of valuable contributions to vertebrate zoology by this celebrated geologist. The present volume is rare.

DANCUS (Supposititious King of India).

1874. Libro delle nature degli uccelli fatto per lo re Danchi [and tr. from the Lat.] Testo antico Toscano messo in luce da Francesco Zambrini. *pp. 34+[2]+71. illust.* (Scelta di curiosità letterarie inedite o rare dal secolo XIII al XVII.) *Bologna.*

A scarce and curious work.

DANDO, W. P.

n.d. Wild Animals and the Camera. *pl. London.*

n.d. More Wild Animals and the Camera. *pl. New York.*

DANFORD, C. G.

1889. Notes on sport and ornithology by . . . Prince Rudolf of Austria. Translated . . . by C. G. Danford. *See* RUDOLF, F. K. J.

DANIEL, JOHN FRANKLIN [1873–].

1928. The elasmobranch fishes. *4to. pp. 12+332. illust. pl. Berkeley.*

DANIELL, WILLIAM [1769–1837].

[**1809**]. Interesting Selections from Animated Nature, etc. *2 vols. folio. 120 pl. with descriptive letterpress. London.*

This work is described in the title as furnishing 58 additional illustrations to Wood's *Zoography.*

DANIELSSEN, D. C.
1883. *See* KOREN, JOHAN.

DANMARKS FAUNA.
1907–28. Illustrerede Haandbøger over den Danske Dyreverden, udg. af Naturhistorisk Forening. *8vo. illust.* Nos. 1–32. *Copenhagen.*

A popular but reliable serial description of the faunal life of Denmark, published under the auspices of the local Natural History Society. To date 32 numbers have been issued.

DANNEMANN, F.
1921. Plinius und seine Naturgeschichte, etc. *Jena.*

DANSKE-FUGLE [bi-annual Organ for] **DANSK ORNITHOLOGISK CENTRAL VED P. SKOVGAARD.**
1920–*date*. *8vo. illust.* *Viborg.*

This small but promising journal is devoted to a study of (in particular) the birds of Denmark.

DANSKE VIDENSKABERNES SELSKAB. *Copenhagen.*
1917–*date*. Biologiske meddelelser.
1824–46. Selskabs Skrifter. (Naturvidenskabelig.) Series 4.
1849–80. Selskabs Skrifter. (Naturvidenskabelig.) Series 5.
1880–1904. Selskabs Skrifter. (Naturvidenskabelig.) Series 6.
1904–14/15. Selskabs Skrifter. (Naturvidenskabelig.) Series 7.
1915/17–*date*. Selskabs Skrifter. (Naturvidenskabelig.) Series 8.
1814–*date*. Oversigt over . . . forhandlinger.

DANSK NATURHISTORISK FORENING. *Copenhagen.*
1849–*date*. Videnskabelige.
1849–1912 as Naturhist. Forening i Kjöbenhavn.

DANSK ORNITHOLOGISK FORENING. *Copenhagen.*
1906–*date*. Tidskrift. Quarterly.

The *Tidskrift* is the principal ornithological journal published in Denmark. It is not only the organ of the Danish Ornithological Society (whose proceedings are regularly reported in its pages) but it as regularly prints valuable articles not only on avian life in general but on Scandinavian ornithology in particular. Although it is not the purpose of this catalogue to refer to specific essays in the periodicals noted yet an exception may be made to the admirable, illustrated papers in the *Tidskrift* on Prehistoric Birds by Gerhard Heilmann. Other writers of importance have, with the Editor, also furnished noteworthy articles—A. Hagerup, P. Jespersen, P. Skovgaard, C. A. Rasmussen, E. Lehn Schipler, J. Ferdinand, S. M. Saxtorph, R. J. Olsen, and a number of others.

DANTZIG. Naturforschende Gesellschaft.
1746–56. Versuche und Abhandlungen. 1–3 (all pub.).
1778. Neue Versammlungen.
1820–62. Neuste Schriften, continued as
1863–*date*. Schriften. Neue Folge.

D'ARENBERG, *Prince* E.
1922. Les Passeraux, etc. *pp. 156. 17 col. pl.* *Paris.*

DARESSY, G. *See* GAILLARD, C. La Faune, etc., 1905.

DARLUC, MICHEL [1717–83].
1782–6. Avignon; Histoire naturelle de la Provence. *3 vols. 8vo.* *Avignon.*

DARMSTADT. Naturhistorischer Verein fuer . . . Hessen und Umgebung.
1847–8. Verhandlungen. 1–2 (all pub.).

DARWIN, CHARLES ROBERT [1809–82].
1839. Narrative of the surveying voyages of H.M.S. Adventure and Beagle between . . . 1826 and 1836. Philip King and others. *3 vols. in 4. 8vo. illust.* *London.*

One of the earliest publications relating to these famous Voyages, epochal accounts that have passed through many editions and have been translated into many foreign languages.

1839–43. The zoology of the voyage of H.M.S. Beagle, under the command of Captain Fitzroy, during the years 1832 to 1836. *5 vols. in 3. folio. pl.* *London.*

Fine copy of this work (edited by Charles Darwin) so well known to naturalists and so necessary to all students of vertebrate zoology. A complete table of contents is given under *Zoology of the Voyage*, etc. (q.v.).

**** and **WALLACE,** ALFRED.
1858. On the Tendency of Species to form Varieties, etc. *8vo.* *London.*

A celebrated treatise, forerunner of the *Origin of Species*. *See also* WALLACE, ALFRED R., 1858.

1859. On the Origin of Species by means of natural selection. *8vo. pp. 10+502. 1 pl.* *London.*

This copy (very rare) is the first impression of the first edition in which the story of the bear (p. 184), afterwards suppressed, is given. The various libraries of McGill have on their shelves most of the numerous editions and translations of this famous work.

1859. On the origin of species by means of natural selection. *8vo. pp. 10+502. pl.* *London.*

The (so-called) first edition. Both the first impression and the first edition are now quite rare.

1859. Journal of researches into the natural history and geology of the countries visited during the voyage of H.M.S. Beagle round the world, under the command of Capt. Fitzroy. *2 vols. 8vo.* Vol. I, *pp. vii+(1)+351. 6 figs. T. of c.* Vol. II, *pp. 5+(1)+7–324. 15 figs. T. of c. index.* *New York.*

A popular account of the voyage of the 'Beagle', in which references to birds occur frequently.

1868. The Variation of Animals and Plants under Domestication. *2 vols. 8vo. illust.* *London.*

An exceedingly interesting and well-known treatise by the great naturalist. A second edition appeared in 1875.

1871. The descent of man, and selection in relation to sex. *2 vols. illust.* *London.*

First edition of this much debated work.

1872. Expression of the emotions in man and animals. With photographic and other illustrations. *12mo. pp. vi+374. 7 pl. (3 fold.). 21 figs. T. of c. index.* *London.*

First printing of this classic whose title sufficiently explains its contents. References to birds occur throughout the volume, especially to sheldrakes, flamingos, kingfishers, kagus, fowls, chickens, and the secretary bird.

1873. The expression of the emotions in man and animals. . . . With photographic and other illustrations. *8vo. pp. v+374. 7 pl. (2 fold.). 21 figs. T. of c. index.* *New York.*

The American edition of the original published in London.

1875. Voyage d'un naturaliste autour du monde ('Beagle').

1878. Journal of researches into the natural history and geology of the countries visited during the voyage of H.M.S. Beagle round the world. New ed. *8vo. pp. x+519. 19 figs. (5 of birds). T. of c. index.* *New York.*

The second edition of this work appeared in 1845 and was reissued with a postscript in 1860, and apparently again in 1878, the date of the present copy. The volume contains a condensed popular history of the voyage, with references to birds scattered throughout its pages. For a more detailed account of these the reader is referred to the larger publications on the zoology of the voyage, the account of the Aves being by John Gould. There are many subsequent editions of the present work under slightly different titles, one in 1888, another in 1897, and one with no date, but presumably published after the author's death in 1882.

1880. What Mr. Darwin saw . . . in the 'Beagle'. *New York.*

1887. Podróz naturalisty, etc. (Polish translation of the Voyage of the 'Beagle'). *Warsaw.*

1888. A naturalist's voyage. Journal of researches into the natural history and geology of the countries visited during the voyage of H.M.S. 'Beagle' round the world. Seventeenth thousand. *8vo. pp. x+519. 19 figs. (5 of birds). T. of c. index.* *London.*

Apparently a reissue of the 1860 and 1878 editions with altered title.

1888. Journal of Researches into the Natural History . . . of the Voyage of the 'Beagle'.

1893. Reise eines Naturforschers um die Welt. (Tr. by J. Carus.) 2nd ed. *Stuttgart.*

1897. A Naturalist's Voyage. Journal of researches into the natural history and geology of the countries visited during the voyage round the world of H.M.S. Beagle. With portrait. *8vo. pp. xii+500. 19 figs. (5 of birds). T. of c. index.* *London.*

Apparently another reissue of the 1860 and 1878 editions with an altered title.

1909. Darwin and modern science. *See* SEWARD, A. C., *ed.*

1910. British Museum Natural History Special Guide no. 4. Memorials of Charles Darwin to commemorate the 50th Anniversary of the publication of the 'Origin of Species'. *London.*

1912. Journal of Researches into the Natural History . . . of the Voyage of the 'Beagle', etc. New ed. *8vo.*

1913. Journal of Researches, etc.

Identical with the foregoing.

n.d. Journal of researches into the natural history and geology of the countries visited during the voyage of H.M.S. 'Beagle' round the world; with a biographical introduction. *8vo. pp. 492. front. (portr.). 15 pl. 30 figs. T. of c. index.* *London.*

The text of this edition appears to be the same as that of the second (1845), embellished, however, with 16 full-page plates and many extra figures in the text.

DARWIN, ERASMUS [1731–1802].

1794–6. Zoonomia; or, the Laws of Organic Life. *2 vols. 4to. pl.* *London.*

This is the celebrated forerunner of Darwinism, fully annotated elsewhere in this INTRODUCTION.

1796. Zoonomia, or, The laws of organic life. 2nd ed. corr. *2 vols.* *London.*

DARWIN, FRANCIS [1848–?1923].

1922. A naturalist's calendar kept at Swaffham Bulbeck, Cambridgeshire, by Leonard Blomefield. . . . 2nd ed. Edited by F. Darwin. *See* BLOMEFIELD, originally JENYNS, *Rev.* L.

DAUBENTON, EDME LOUIS [1732–85].

1771–86. Histoire naturelle des oiseaux. [Edition with the 'Planches enluminées' drawn by Martinet under the supervision of E. L. Daubenton.] *See* BUFFON, G. L. L.

1874. *See* BODDAERT, P.

DAUBENTON, LOUIS JEAN MARIE [1716–99].

1749–1804. *See* BUFFON and others, 1749–1804.

1776. Collection d'Oiseaux Natifs . . . de Papillons, etc. *folio.* *Nuernberg.*

1782–1832. *See* ENCYCLOPÉDIE MÉTHODIQUE.

DAUBENY, CHARLES GILES BRIDLE [1795–1867] and **others.**

1869. Fugitive Poems connected with Natural History, etc. *12mo.* *Oxford.*

DAUDIN, FRANÇOIS MARIE [1774–1804].

1800. An VIII. Traité élémentaire et complet d'ornithologie, ou Histoire naturelle des oiseaux. *2 vols. 4to. 29 col. pl. T. of c. indexes.* Vol. I, *pp. 474. 8 col. pl.* Vol. II, *pp. 473+1. 21 col. pl.* *Paris.*

This is the edition with the plates colored, and in this state is a scarce item. It is a fine example of ornithologic book-making and reflects credit on the literary and scientific qualities of the First French Republic. The author acknowledges his indebtedness to 'Citoyens Cuvier, Duméril et Dufresne' for a part of his text and illustrations. From the library of Kirke Swann who has made a number of autograph notes.

[**1801–4**]. An X–XIII. Histoire Naturelle générale . . . des Reptiles—suite de Buffon (Sonnini). *8 vols.* *Paris.*

DAUDIN, HENRI.

1926. Cuvier et Lamarck. Les classes zoologiques etc. (1790–1830). *2 vols. 8vo.* *Paris.*

A most useful treatise on notable men and their work in zoology and its literature.

[**1926**]. De Linné à Jussieu, etc. *8vo.* *Paris.*

DAULTON, *Mrs.* A. W.

1903. Wings and Stings. (Wanting.)

DAVENPORT ACADEMY OF SCIENCES. *Davenport.*

1867/76–*date*. Proceedings.

1867–1902 as Proceedings of Davenport Academy of Natural Sciences.

DAVID, ARMAND, *Abbé* [1826–] and **OUSTALET,** ÉMILE.

1877. Les oiseaux de la Chine. *2 vols. 4to.* Vol. I, Text. *pp. vii+1+573. index.* Vol. II, *Atlas. pp. vi. 124 col. pl. T. of c.* *Paris.*

Probably the most important systematic monograph yet written on the birds of China. The work treats of 807 species, illustrated by a collection of fine colored plates that greatly assist a study of the subject.

DAVIE, Oliver.

1889. Nests and eggs of North American birds. 3rd ed., revised and augmented. Introduction by J. Parker Norris. Illustrations by Theodore Jasper . . . and W. Otto Emerson. *8vo. pp. (10)+455+(1)+xii. front. 12 pl. append. index.* *Columbus.*

One of the earliest works on North American oology, containing descriptions of the nests, eggs, and nesting habits of the birds of the country. The original edition (1885) was issued under a somewhat different title, 'An Egg Check-list of North American birds', and in a much more abbreviated form. A fourth edition with a slight alteration in the title-page only, appeared the same year.

1889. Nests and eggs of North American birds. 4th ed. *pp. (10)+455. front. 12 pl. append. index.* *Columbus.*

This edition apparently differs only from that of the third 1889 in the deletion of the words 'revised and augmented'. A fifth edition, revised, augmented, and illustrated, was issued in 1898, with a second impression in 1900, published in Philadelphia, which differs in the title-page and number of illustrations from the former.

1894. Methods in the art of taxidermy. Ninety full-page engravings chiefly drawn by Theodore Jasper. *8vo. pp. xiv+150. front. 89 pl. T. of c. index.* *Columbus.*

A manual illustrating the various modes of procedure in taxidermy. The portions devoted to the skinning and mounting of birds are chapters IV–VIII, pp. 39–78, with illustrations plates X–XLIII. A list of subscribers is given at the end of the volume, pp. i–xiii.

1898. Nests and eggs of North American birds. 5th ed., revised, augmented, and illustrated. *Columbus.*

[*c.* **1900**]. Nests and eggs of North American birds. With a chapter on ornithological and oological collecting. 5th ed. *8vo. pp. (8)+509+(1)+18+xxi. front. 5 pl. 268 figs. append. index.* *Phila.*

A second impression of the 1889 edition. The text is the same in both editions, differences occurring in the title-page, frontispiece, and number of illustrations. It is in two parts: (1) Nests and eggs of North American birds, (2) Ornithological and Oological collecting, with five plates illustrating avian taxidermy.

DAVIES, A. M. and **WELLS,** H. G.

1923. Text-book of zoology. 6th ed. rev. by J. T. Cunningham. *See* wells, h. g.

DAVIES, G. Christopher.

1890. The natural history of Selborne. *See* white, gilbert, 1890.

DAVIES, James Boyd.

1858. The practical naturalist's guide, containing instructions for collecting, preparing, and preserving specimens in all departments of zoology. *8vo. pp. iv+82. 10 figs. T. of c. index.* *Edinburgh.*

DAVIES, William [1814–91].

1874. Catalogue of the Pleistocene vertebrata . . . in the collection of Sir A. Brady, by W. Davies, with an introd. by Sir A. Brady. *8vo. pp. 27+74. 1 pl. figs. in text. See also* brady, a., 1874. *London.*

AVIS, James Richard Ainsworth [1861–].

1893. An elementary text-book of biology. 2nd ed. *2 vols. 8vo.* Vol. I, *pp. xii+287. 128 figs. T. of c. glossary. index.* Vol. II, *pp. xii+405. 108 figs. T. of c. glossary. index.* *London.*

1903–4. The natural history of animals: the animal life of the world in its various aspects and relations. *4 vols. in 8. 8vo. pp. cxiv+1,957. 63 pl. (32 col.). 1,957 figs. T. of c. glossary. index.* *London.*

This excellent, well-illustrated work instead of treating the various animal groups seriatim, aims at bringing out the complex interrelations between the different groups, the interdependence of animals and plants, and the bearing upon life of chemical and physical conditions.

DAVIS, James William [1846–93].

1887. The fossil fishes of the chalk of Mount Lebanon, in Syria. *4to. pp. 180. pl.* Ex. from *Royal Dublin Society. Scientific transactions,* vol. 3, Ser. 2. *Dublin.*

DAVIS, Miles Avery [1843–1915?].

1916. Bird poems. *16mo. pp. 37.* *New York.*

DAVIS, William J.

1907. The birds of Kent. *8vo. pp. iv+298. 1 pl. 1 map.* *Dartford.*

DAVY, John [1790–1868].

1821. An account of the interior of Ceylon, etc. *4to. pp. viii+530.* *London.*

This is the first English work dealing with the civil and religious history of Ceylon, its natural history, and the customs of its inhabitants, since Captain Robert Knox's *History* published a hundred and forty years previously.

DAWSON, Charles B.

1916. Hand-list of the birds of British Guiana, with some account of their habits and affinities. Published under the auspices of the Museum Committee of the Royal Agricultural and Commercial Society, Georgetown. *8vo. pp. (2)+72.* *Georgetown.*

A series of articles giving a brief, general description of all the Classes, Orders, Families, and Genera of the birds of the colony with a short account of their habits, characteristics, and affinities. The list of the Colony birds has been compiled from the Hand-list of the British Museum 1899–1912. The tractate is rare; not listed in the *Cat. Br. Mus.* (*Nat. Hist.*).

DAWSON, George Mercer [1849–?1921].

1875. British North American Boundary Commission. Report on the Geology and resources of the region in the vicinity of the forty-ninth parallel, from the Lake of the Woods to the Rocky Mountains. With lists of plants and animals collected, and notes on the fossils. *8vo. pp. xii+387. front. (col. map, fold.). 18 pl. 2 maps (col. fold.). T. of c. 6 append. index.* *Montreal.*

Notes referring to birds will be found on pp. 279–83, and consist principally of dates of arrival of the birds at Dufferin in the spring of 1874.

DAWSON, *Sir* John William [1820–99].

1854. Practical hints to the farmers of Nova Scotia on the management and improvement of live stock, etc. *8vo. pp. viii+9–148. 12 figs. T. of c. index.* *Halifax.*

1863. Air-breathers of the Coal Period . . . Land Animals found in Nova Scotia. *8vo. pp. 4+81. 7 pl.* *Montreal.*

1875. The Dawn of Life, etc. *pp. 12+239. 8 pl. illust. text.* *Montreal.*

A complete collection of Principal Dawson's works on natural history are in the McGill libraries, several of them, his *Handbook of Zoology,* Montreal, 1886, for example, especially dealing with vertebrate zoology, being noted here. The English edition of the present title, published in London, is *Life's Dawn on Earth.*

1884. Hand-book for the Dominion of Canada, prepared for the Meeting of Br. Ass. A. S. at Montreal. *8vo. pp. 12+335. 2 maps (1 col.).* *Montreal.*

The natural history of Canada, especially its geology, is included.

1886. Handbook of Zoology, with examples from Canadian species, recent and fossil. 3rd ed. *12mo. pp. 8+304. figs. in text.* *Montreal.*

A popular manual of which the present edition is said to be the best.

1888. Specimens of *Eozoon canadense* and their geological and other relations. *8vo.* From McGill University Publications.

DAWSON, WILLIAM LEON [1873–?1926].

1903. The birds of Ohio; a complete scientific and popular description of the 320 species of birds found in the state. Color-photography, and more than 200 original half-tones, showing the favorite haunts of the birds, flocking, feeding, nesting, etc., from photographs taken by the author and others. *2 vols. 8vo.* Vol. 1, *pp. xlviii+368. front. 41 pl. (col.). 155 figs. (1 diagr.). T. of c.* Vol. 2, *pp. (4)+369–671. front. (col.). 38 pl. (col.). 57 figs. 3 append. index.* *Columbus.*

A popular but excellent and systematic treatise.

****, **BOWLES,** JOHN HOOPER, and **others.**

1909. The birds of Washington; a complete scientific and popular account of the 372 species of birds found in the state. *2 vols. 8vo.* Vol. 1, *pp. (6)+xv+(3)+458. front. 8 pl. (col.). 167 half-tones. T. of c.* Vol. 2, *pp. (6)+111+(3)+459–997. front. 4 pl. (col.). 192 half-tones. T. of c. index.* *Seattle.*

A popular account of the birds of the State, with scientific and vernacular names, recognition marks, nesting data, and full notes on habits, etc. A supplementary chapter on 'Analytical Keys' by Lynds Jones, and a 'British Columbia Supplement with annotations' by Allan Brooks follow. The present set forms copy No. 29 of the Author's Edition (autographed).

1921. The birds of California. A complete, Scientific and Popular account of the 580 Species and Sub-species of Birds found in the State. 16 Photogravures, 4 full-page Photographs and more than 1,000 half-tone cuts from photographs, chiefly by Donald R. Dickey, Wright M. Pierce and the author. Together with 30 drawings in the text and a series of 48 full-page color plates chiefly by Maj. Allan Brooks. Booklovers edition. *4 vols. 4to.* Part I, *pp. 64. 4 pl. (col.). 32 figs.* Part II, *pp. 65–128. 4 pl. (2 col.). 27 figs.* *San Francisco.*

A profusely illustrated account of the birds of California with description of range, nesting, and distribution, etc. The work was issued in a variety of editions, one, sumptuously bound with several of Allan Brooks' original drawings.

1923. The birds of California. *2 vols. Los Angeles.*

The present copy is of the Student's edition and has the same text as the 'Booklovers'. Attached to the first page of volume I is a photograph of Major Allan Brooks in his study.

1923. The birds of California; a complete, scientific and popular account of the 580 species and sub-species of birds found in the state; illust. . . . chiefly by D. R. Dickey [and others], together with 44 drawings in the text and a series of 110 full-page color plates, chiefly by Allan Brooks. Format de luxe, stockholders' ed. *4 vols. folio.* (Wanting.) *San Diego, Calif.*

With several original drawings by Allan Brooks.

DAWSON-SCOTT, C. A. *See* RHYS, ERNEST, 1929.

DAY, FRANCIS [1829–89].

[1875]–[1888]. The Fishes of India . . . Burma and Ceylon, etc., with Supplement. Text and Atlas. *2 vols. 4to. pp. xx+778–(816). text illust. atlas. 195 pl.* *London.*

The recognized authority on Indian Fishes; contributed also to the *Fauna of British India*, 1889. *See* BLANFORD, W. T

1878–91. *See* SCIENTIFIC RESULTS SECOND YARKAND MISSION, 1878–91.

1880–4. The Fishes of Great Britain and Ireland [a Natural History of those known to inhabit the Seas and fresh Waters of the British Isles, with their Economic Uses and Modes of Capture]. *2 vols. 8vo. 179 lithog. pl. London and Edinburgh.*

A most valuable, systematic treatise by a well-known, trained expert.

1889. One hundred and ninety-eight plates to illustrate Francis Day's work on the Fishes of India. *4to.* *London.*

These separately published plates have a page of descriptive letter-press.

1889. *See* BLANFORD, W. T., 1889.

DEAN, BASHFORD [1867–1928].

1895. Fishes, living and fossil. An outline of their forms and probable relationships. *8vo. pp. xiv+300. front. illust. tables. diagr.* (Columbia university biological series, III.) Bibliography, pp. 231–51. *New York and London.*

A valuable systematic treatise by a well-known ichthyologist.

**** and **EASTMAN,** CHARLES ROCHESTER.

1916–23. A bibliography of fishes, by Bashford Dean; enlarged and ed. by C. R. Eastman. (N.Y. American Museum of Nat. History.) *3 vols. 4to.* *N.Y.*

The most remarkable and complete work of its kind in any language. Every article and every treatise touching any relation of piscine life and its literature are listed and fully annotated. This monumental evaluation of the bibliography of fishes may well stand as a model for similar achievements in other departments of scientific endeavor.

DEARBORN, NED [1865–].

1893. The Death Valley expedition. A biological survey of parts of California, Nevada, Arizona, and Utah. Part II. (U.S. Dept. of agriculture. Division of ornithology and mammalogy. North American fauna, no. 7.) *8vo. pp. 402. front. 14 pl. 2 figs. 5 maps (col., 1 fold.). T. of c. index.* *Washington.*

A very important contribution to vertebrate zoology. A. K. Fisher gave the Report on birds; Leonhard Stejneger on reptiles; Charles H. Gilbert on fishes, and T. S. Palmer furnished a list of localities. 290 species and sub-species of birds are described.

1898. A preliminary list of the birds of Belknap and Merrimack Counties, New Hampshire. *Durham.*

1903. Birds in their relations to man, &c. *See* WEED, C. M., 1924.

A third, revised edition was published in 1924.

DE BEER, GAVIN RYLANDS [1899–].

1928. Vertebrate zoology; an introduction to the comparative anatomy, embryology, and evolution of chordate animals, with an introd. by J. S. Huxley. *8vo. pp. 20+505. illust.* *London.*

DE BLAINVILLE, H. M. D. *See* BLAINVILLE, H. M. D.

DÉCADES ZOOLOGIQUES de la Mission Scientifique de l'Expédition en Indo-Chine: Oiseaux. Avec Introduction par L. Boutan. Hanoi, 1905–8. *9 fasc. 93 col. pl.* (Wanting.)

DE CHAULIAC, GUY. *See* CAULIACO, GUIDO DE,

DECKEN, CARL CLAUS VON DER [1833–65].

1869–79. Reisen in Ost Afrika in 1859–61, etc. *4 vols. 4to. illust. Leipzig and Heidelberg.*

This well-known collection of scientific travelogues depicts and describes the natural history of East Africa through the explorations not only of Baron von der Decken but also of the subsequent journeys of R. Brenner and T. Kinzelbach. All the sub-classes, mammalia, aves, pisces, reptilia, and amphibia, were investigated and described, the first and last by W. C. H. Peters, the birds by J. Cabanis, O. Finsch, and G. Hartlaub, and the freshwater fishes by E. von Martens.

DEGLAND, CÔME DAMIEN [d. 1856].

1849. Ornithologie européenne; ou, Catalogue analytique et raisonné des oiseaux observés en Europe. *2 vols. in 1. 8vo.* Vol. I, *pp. (8)+632. T. of c.* Vol. II, *pp. (2)+540. T. of c. Paris.*

Diagnoses and descriptions of the species and higher groups of the birds of Europe with synonymies, etc. The work is full of errors and was criticized by Bonaparte in his *Revue Critique de l'Ornithologie Européenne de M. le Docteur Degland (de Lille)*, 1850. A second edition was published by Z. Gerbe in 1867 in which some of the errors of the first edition are corrected but others are unnoticed.

1850. Revue critique de l'ornithologie européenne de M. Degland . . . Lettre, &c. *See* BONAPARTE, C. L. J. L.

******** and **GERBE,** Z.

1867. Ornithologie européenne, ou catalogue descriptif, analytique et raisonné des oiseaux observés en Europe. 2e ed. entièrement refondue. *2 vols. 8vo. T. of c. index.* Vol. I, *pp. xxx+610. T. of c.* Vol. II, *pp. xv+637. T. of c. general index. Paris.*

A valuable contribution to a study of European birds with their synonymy, diagnosis, distribution, and habits. This second edition of the earlier (1849) work was edited, amended, and corrected by Gerbe after the death of Degland. It is unfortunate that neither of these printings is illustrated. There is also a supplement (1912) published by É. L. Trouessart, with the title *Catalogue des Oiseaux d'Europe* (q.v.).

1912. Catalogue des Oiseaux d'Europe, pour servir de complément et de supplément à l'ornithologie européenne, de Degland et Gerbe (1867). *See* TROUESSART, É. L.

There is also an Atlas, Vol. I and Appendix, published by D. Solomirsky, Stockholm, 1914–15.

DEGREAUX, LAURENT.

1871. Études Ornithologiques, etc. *8vo.* (Wanting.) *Paris.*

DEHAUT, E. G.

1911–15. Matériaux pour servir à l'histoire zoologique et paléontologique des îles de Corse et de Sardaigne. *pts. 1–4 in 1 vol. folio. pl. Paris.*

1920. Contributions à l'étude de la Vie vertébrés, etc. *8vo. Paris.*

DE KAY, CHARLES [1848–?1920].

[1898]. Bird gods, with an accompaniment of decorations by George Wharton Edwards. *8vo. pp. xix+(5)+249. 53 figs. T. of c. index. New York.*

Studies in mythology to show the influence of birds and beasts on prehistoric religions. Attached is an autographed letter from the author to Ernest Ingersoll, dated Nov. 30, 1898.

DE KAY, JAMES ELLSWORTH [1792–1851].

1842–4. Zoology of New York, Part I. [6 vols. of Natural History of New York. 1842–94.] *4to. New York.*

This author deals completely with N.Y. Zoology, Part I. The section devoted to the mammalia is part 1, pp. 13+146, 3 pls., 1842; part 2, Birds, pp. 12+380, 141 col. pl., 1843–4; part 3, Reptiles and Amphibia, pp. 6+98, 23 pl., 1842; part 4, Fishes, pp. 14+415, 79 pl., Altogether this forms the most elaborate of the American local faunal histories. The complete work is usually published in 20 vols.

DELACOUR, JEAN THEODORE [1890–] and **JABOUILLE,** PIERRE.

1925. Recherches ornithologiques dans la province de Quantri (centre Annam) et quelques autres regions de l'Indochine française, par Jean Delacour et Pierre Jabouille. *8vo. pp. xii+197. 28 pl. (9 col.). 1 fig. T. of c. bibliogr. Paris.*

The new species noted had already been described in the *Bull. Brit. Orn. Club*, xlv, pp. 28–35, 1924.

1927. Les Gallinaces et les Pigeons de l'Annam. *8 pl.*

1927. Recherches ornithologiques dans Tranninh (Laos), etc.

DELAGE, MARIE YVES [1854–1920] and **HÉROUARD,** EDGARD.

1896–8. Traité de zoologie concrète. *8 vols. 4to. illust. Paris.*

DELAMARRE DE MONCHAUX, *Comte.*

1923. Les oiseaux chanteurs; principales espèces d'Europe. *12mo. pp. lxiii+107. 174 text-figs. 96 col. pl. T. of c. index.* (*Encyclopédie pratique du naturaliste*, IX.) *Paris.*

A semi-popular account of European song-birds, rather well-illustrated by colored and plain plates.

DELARBRE, ANTOINE [1724–1811].

1797. Essai zoologique (Histoire Naturelle). *8vo. Clermont-Ferrand.*

DELAWARE VALLEY ORNITHOLOGICAL CLUB OF PHILADELPHIA. *See* CASSINIA.

DELESSERT, ADOLPHE.

1843. Souvenir d'un Voyage dans l'Inde exécuté de 1834 à 1839. *2 parts in 1 vol. 8vo. col. illust.* (Wanting.) *Paris.*

DE LEVENDE NATUUR.

1897–1926. Tijdschrift v. natuurliefhebbers, onder redact. Heimans and Thijsse. Années I–XXX. *4to. many pl. and figs. Amsterdam.*

A popular and well-illustrated Dutch periodical, devoted to natural history.

DELL, J. A.

1925. Animals in the making; an introduction to the study of development. *12mo. pp. xii+115. 8 pl. 31 figs. T. of c. 2 append. London.*

Chapters VIII and IX, pp. 71–93, are devoted to birds' eggs, and the development of birds, with excellent diagrams of the reproductive organs and embryo at various stages.

DEMAISON, ANDRÉ.

1930. Beasts called wild. *illust. New York.*

An interesting popular book on the many triumphs of a naturalist in securing the confidence of animals commonly regarded as untameable or as domesticated with difficulty.

DEMELL, R.

1918. Der Flug der Insekten und der Vögel. *5 pl. Jena.*

DEMETRIUS CONSTANTINOPOLITANUS.
1562. De Cura et medicina accipitrum. Petro Gillio interprete. *12mo. pp. 527–662. in two chapters* [libri].

A treatise on Hawks and Falconry. *See* AELIANUS, 1562. Another chapter, by the same author, 'De Cura et medicina canum', pp. 655–68, appears in the latter.

DEMĬDOV, ANATOLE N., *Prince of San Donato* [1812–70].
1840–2. Voyage dans la Russie méridionale et la Crimée, etc. *6 vols. (2 col. atlas). 8vo and folio. Paris.*

Apart from fossil remains and 'observations sur la Faune Pontique', by A. de Nordmann, vertebrate zoology is not largely discussed in these excellent records of the natural history of Southern Russia.

DENDY, A.
1920. The System of Animate Nature. *2 vols. N.Y.*

A popular work on biology.

DENHAM, DIXON [1786–1828] and **CLAPPERTON,** HUGH.
1826. Narrative of travels and discoveries in Northern and Central Africa, in the years 1822, 1823, and 1824. *4to. pp. xlviii+335+(5)+269+(3). front. 36 pl. (1 col., 3 maps). 1 map (fold.). 14 figs. T. of c. 24 append. London.*

The birds are described in the annotated list, appendix No. XXI, pp. 195–206. A second, 8vo, edition appeared the same year but without the natural history appendices.

DENISON UNIVERSITY, GRANVILLE, OHIO.
1885–*date.* Journal.

1885–1919, as Bulletin.

DENKER, ALFRED [1863–].
1907. Das Gehörorgan und die Sprechtwerkzeuge der Papageien, eine vergleichend-anatomisch-physiologische Studie; mit Unterstützung der K. Bayerischen Akademie der Wissenschaften. Mit zehn Tafeln. *folio. pp. (8)+49+(21). 10 pl. 3 figs. index. Wiesbaden.*

The author finds that the internal ear of parrots is no better fitted for the perception of the sound of the human voice than is that of other birds; nor does the structure of the syrinx present any greater capacity for the reproduction of speech. The seat of parrot talk is the back of the throat, assisted by the muscles of the tongue, with its motor centre in the mesostriatum of the hemispheres.

DENMARK.
1883–1930. Ornithologische Beobachtungsstationen. Jahresbericht. Edited by C. F. Lütgen. *Copenhagen.*

Published in German, English, and Danish, usually as 'separates', with title and (tinted) wrappers, and with the pagination of the periodical of which they form a part, with maps and plates, many colored.
This periodical, mostly extracts (with new pagination, title-page and covers) from the 'Videnskabelige . . . fra den Naturhistoriske Forening i Kjöbenhavn', is largely filled with descriptions and reports of birds observed during the year in various parts of Denmark and occasionally in Iceland, Greenland, and other northern countries. To each part a map is appended marking the localities in which the reported birds were seen.
Aarsberetning . . . 6–28 are unnumbered.

Ingolf-Expedition.
1899. *6 vols. 4to. illust. Copenhagen*

The reports (published in both English and Danish) furnish relatively few articles on vertebrate zoology.

DENNE, DAVID.
1895. Original sporting sketches. *See* WINTLE, E. D.

DENNIS, C. J.
[**1922**]. Mateship with birds; by A. H. Chisholm. With an introduction by C. J. Dennis, &c. *See* CHISHOLM, A. H.

DENNIS, ROBERT NATHANIEL [1817–92].
1925. Notes on Sussex ornithology; being extracts from [his] diaries (1845–1869); selected and ed. by W. H. Mullens and N. F. Ticehurst. *8vo. pp. 110. portr. London.*

Mostly notes on the fauna of the neighborhood.

DENTON, SHERMAN FOOTE.
1889. Incidents of a collector's rambles in Australia, New Zealand, and New Guinea. *8vo. pp. ix+(1)+272. front. 14 pl. 42 figs. T. of c. Boston.*

References to birds are numerous throughout the book, many specimens being collected.

DEPÉRET, CHARLES JEAN JULIEN [1854–?1930].
1907. Les Transformations du Monde animal. *pp. 360. Paris.*

A philosophic treatise, much of it devoted to vertebrate studies.

DERBY, *Earl of.*
1851. Catalogue of the Menagerie and Aviary at Knowsley. *4to. See* STANLEY, E. S. *Liverpool.*

DERBYSHIRE NATURAL HISTORY AND ARCHAEOLOGICAL SOCIETY.
1879–98. Journal. Vols. 1–20. *8vo. illust. pl. diagr. facsim. tab. London.*

DERHAM, WILLIAM [1657–].
1738. A natural history of birds. *See* ALBIN, E.

DESCOURTILZ, J. THÉODORE.
[**1852**]. Ornithologie Brésilienne; ou, Histoire des oiseaux du Brésil, remarquables par leur plumage, leur chant, ou leurs habitudes. *folio. pp. 42. 48 pl. (col.). Rio de Janeiro.*

A very important, fundamental, systematic treatise. It furnishes descriptions and colored figures of 164 species, including 15 new species and one new genus. According to Carus and Engelmann, and Coues, it was issued in four parts under dates of [1854–6], although the reverse of the title-page in this copy bears the date Londres, 1852. These same authorities also cite an edition in English, but without date. The Compiler has seen an almost identical copy in the original four parts dated Rio de Janeiro, 1875. The library of the Zoological Society has an English translation dated 1859.

DESCOURTILZ, MICHEL ÉTIENNE [1775–1835].
1809. Voyages d'un naturaliste, et ses observations. Faites sur les trois règnes de la nature, dans plusieurs ports de mer français, en Espagne, au continent de l'Amérique Septentrionale. *3 vols. 8vo. front. 17 col. pl. fold. tab. Paris.*

Sabin describes a copy having 20 pl.; Leclerc, 22; Quérard, 45.

DESFONTAINES, RÉNÉ LOUICHE [1750–1833].
1880. Mémoire sur quelques nouvelles espèces d'oiseaux des côtes de Barbarie. *8vo. pp. 496–505. pl. x–xvi.* (Rep. from *Histoire de l'Académie royale des sciences,* année 1787.) At head of title: The Willughby society. *London.*

Facsimile reprint of an important ornithological 'fundamental' with a preface by Alfred Newton.

DESMAREST, ANSELME GAËTAN [1784–1838].
1782–1832. *See* ENCYCLOPÉDIE MÉTHODIQUE.

1805. An XIII. Histoire naturelle des tangares, des manakins et des todiers. *folio. 72 col. pl. n.p. T. of c. Paris.*

The eight preliminary pages of text fully explain the purpose of this atlas and descriptive account of the cotingas and their allies. It was originally issued in 12 parts, the arrangement of which, including the fine hand-colored plates, is given in the table at the end of the volume.

1820–2. Mammalogie. *2 vols. folio.* (In *Tableau encyclopédique et méthodique* [vols. 6–7].) Vol. 2, plates. *Paris.*

1820–30. *See* VIEILLOT, A. J. P. and others.

DESMAREST, E. *See* CHENU, J. C. (1850)–80.

DESMOULINS, LOUIS ANTOINE [1794–1824].
1825. Anatomie des Systèmes Nerveux des Animaux, etc. Text. *2 parts. 8vo.* Atlas. *4to. Paris.*

DES MURS, MARC ATHANESE PARFAIT ŒILLET [1804–?78].
1842. Ova avium plurimarum. *8vo. pp. 24. Paris.*

1844–71. *See* GAY, CLAUDE.

1845–9. Iconographie ornithologique. Nouveau recueil général des planches peintes d'oiseaux, Pour servir de Suite et de Complément aux Planches Enluminées de Buffon, Éditions in-folio et in-4to de l'Imprimerie Royale, 1770, et aux planches coloriées de MM. Temminck et Laugier de Chartrouse, mêmes formats, accompagné d'un texte, critique et descriptif. Figures dessinées et peintes par Alphonse Prevost [1–24] et Oudard [25–72]. 12 livraisons; in each six plates with explanatory text. *folio. 13+146 ll. Paris.*

The parts were irregularly issued and there are several errors in their numbering. The purposes of these fine and important colored illustrations are fully set forth in the above title. The present volume has all the original wrappers bound in.

1847–51. [Birds of Abyssinia.] *See* VOYAGES, FRENCH. VOYAGE EN ABYSSINIE, 1845–51.

1850–9. *See* CASTELNAU, F. L.

1850–80. *See* CHENU, J. C.

1860. Traité général d'oologie ornithologique au point de vue de la classification. *4to. pp. 19+640. col. pict. wrappers. indexes. Paris.*

An exhaustive and indispensable work on general öology, with an appended systematic catalogue of the birds after J. Verraux, an alphabetical list of authors cited, a bibliography, and a complete index of avian genera and species.

****, **CHENU,** J. C., and **VERRAUX,** J.
1862. Leçons élémentaires sur l'histoire naturelle des oiseaux. *See* CHENU, J. C.

1886–7. Musée ornithologique illustré; description des oiseaux d'Europe, de leurs œufs et de leurs nids. *4 vols. in 5. 4to. index.* Vol. I. 1886. *pp. xii+200. 80 col. pl. T. of c. index.* Vol. II. 1886. *pp. xi+1+176. 65 col. pl. T. of c.* Vol. III. 1887. Pt. 1. *pp. i–xv+1+200. 94 col. pl. T. of c.* Vol. III. 1887. Pt. 2. *pp. 4+201–315. 95–150 col. pl. index.* Vol. IV. 1887. *pp. viii+214. 50 col. pl. T. of c. general index. Paris.*

A descriptive catalogue of the Birds of Europe with excellent plates of portraits, nests, and eggs, borrowed from the general treatises of Morris and Bree. The headings are French vernacular names of species. The text has been adversely criticized in *Ibis.*

DESOR, PIERRE JEAN ÉDOUARD [1811–82].
1858. Synopsis des échinides fossiles. *8vo. pp. 72 +490. atlas. 45 pl.*

DESPOTT, GIUSEPPI.
1915. A list of the birds of Malta. *8vo.* (Wanting.) *Malta.*

D'ESSLING, *Prince. See* MASSÉNA, A., 1846.

D'ESTERNO.
1864. Du vol des Oiseaux, indication des sept lois du vol ramé et des huit lois du vol à voile. *8vo. pp. 61. 35 figs. in text. 2 fold. pl. T. of c. Paris.*

A useful little treatise on bird flight and its applications to aviation. Not listed in the *Br. Mus. Cat.* (*Nat. Hist.*).

DETMERS, E.
1912. Beitrag zur Kentniss der Verbreitung der ... Brutvögel in Deutschland. *3 maps. Neudamm.*

DETMOLD, EDWARD J. [1883–].
n.d. Twenty-four nature pictures, produced in facsimile. *folio. 24 pl. (14×8 in.). with portfolio.* [*London.*]

This excellent set of nature pictures (in color) depicts six of the smaller British mammals, and 18 birds. The issue consisted of first proofs limited to 500 sets of which the present one is No. 97. The size of the pictures averages about 14 by 8 inches.

DETMOLD. Naturfreund.
1924–*date*. *See also* NATURFREUND.

DEUTSCHE ACCLIMATISATION. Organ des Deutschen Vereins für Vogelzucht und Acclimatisation. Redigirt von Dr. Ant. Reichenow, Berlin, 1879–1908? (all pub.). *See also* ORNITHOLOGISCHES CENTRALBLATT.

Although its main title does not suggest it, this periodical is devoted almost entirely to the care, culture, and propagation of foreign bird life. It is, in effect, an offshoot of a larger journal edited by that accomplished ornithologist, A. Reichenow.

DEUTSCHE EXPEDITION IN DER NÖRDLICHE EISMEER.
1900–10. Fauna Arctica. Zusammenstellung d. arktischen Tierformen. Vols. 1–4 and 5, pt. 1 (all pub.). *See* ROEMER, F.

DEUTSCHE GESELLSCHAFT FÜR KUNST UND WISSENSCHAFT IN POSEN. Naturwissenschaftliche Abteilung.
1894–*date*. Zeitschrift. Nos. 1–8 as Naturwissen. Verein d. Provinz Posen.

DEUTSCHE GESELLSCHAFT FÜR NATURKUNDE UND VÖLKERKUNDE OST-ASIENS. *Tokio.*
1873–*date*. Mitteilungen. Index and Supplement.

DEUTSCHE GESELLSCHAFT FÜR VOLKSTÜMLICHE NATURKUNDE IN BERLIN.
See NATURWISSENSCHAFTLICHE WOCHENSCHRIFT.

DEUTSCHE GRAN-CHACO-EXPEDITION.
See WISSENSCH. ERGEBNISSE DER DEUTSCHEN GRAN-CHACO-EXPEDITION, 1930.

DEUTSCHE MALAKOZOOLOGISCHE GESELLSCHAFT. *Frankfurt-a-M.*
1874–87. Jahrbücher.

DEUTSCHE ORNITHOLOGISCHE GESELLSCHAFT.

1840–1930. Bericht ueber die (Jahres-) Versammlung. [*Die Allgemeine Deutsche Ornith.-Gesellsch.*]

Although the *Journal für Ornithologie* and its forerunner *Naumannia* have since their inception been the organs of the *Deutsche Ornithologen-Gesellschaft*, and many of the papers and proceedings are regularly reported in those periodicals, yet almost every meeting is in addition reviewed more or less fully by one of its officers—usually by the president—and issued as an independent report under the style of a *Bericht*. Together these form a separate series that are very useful to the advanced student, containing as they do papers from the pen of the most accomplished of European Ornithologists.

1900–30. Jahresbericht der Vogelwarte Rossitten der Deutschen Ornithologischen Gesellschaft. Edited by J. Thienemann. *8vo.* Separate title, tinted covers, generally unaltered pagination of the *Journal für Ornithologie*. 1. Jahresberichte, 1900; issued yearly since. Illustrated by map and tables. 100 to 150 pages each.

The fact that the issues under the above rubric occasionally appear as separates of or excerpts from the *Journal für Ornithologie*. (q.v.) does not give the essays a place as a genuine periodical. Occasionally, however, a *Bericht* was printed as a *supplement* to the *Journal* and separately paged; consequently it seems proper to list the whole issue briefly in this catalogue. These annual reports can also be consulted in the pages of the *Journal für Ornithologie*. See its General index, 1894–1913, and subsequent volume indexes. A description of the Observatory and a short history of its activities (Rossitten is very favorably situated, near Memel on a long peninsula, as an observation station) was published with illustrations by J. Thienemann, Berlin, 1910.

DEUTSCHER NATURWISSENSCHAFTLICH-MEDIZINISCHER VEREIN FÜR BÖHMEN 'LOTOS'. *Prague.*

1896–*date.* Abhandlungen.

1915–*date.* Naturwissenschaftliche Schriften.

See also LOTOS.

DEUTSCHER NATURWISSENSCHAFTLICHER VEREIN ZU POSEN. *See* DEUTSCHE WISSENSCHAFTLICHE ZEITSCHRIFT FÜR POSEN.

DEUTSCHER NATURHISTORISCHER VEREIN VON WISCONSIN. *See* WISCONSIN NATURAL HISTORY SOCIETY.

DEUTSCHER ORNITHOLOGEN-VEREIN. *See* NAUMANNIA.

DEUTSCHER VEREIN FÜR VOGELZUCHT UND ACCLIMATISATION. *See* DEUTSCHE ACCLIMATISATION.

DEUTSCHER VEREIN FÜR VOLKSVERSTANDLICHE GESUNDHEITSPFLEGE UND FÜR NATURHEILKUNDE. *Berlin.*

1883?–8? Zeitschrift.

DEUTSCHER VEREIN ZUM SCHUTZE DER VOGELWELT. Ornithologische Monatsschrift.

1876–1930. Monthly. *8vo. illust.*

Vols. 1–2 (1876–7) title reads: Monatsschrift des Sächsisch-Thüringischen Vereins für Vogelkunde und Vogelschutz zu Halle.

Vols. 3–14 (1878–89) title reads: Monatsschrift des Deutschen Vereins zum Schutze der Vogelwelt.

Vol. 15+? (1890+?) title reads: Ornithologische Monatsschrift des Deutschen Vereins zum Schutze der Vogelwelt.

Halle, Zangenberg b. Zeitz, Gera, Merseburg, Leipzig, Magdeburg.

This important, useful and popular periodical has maintained its early promise for over 46 years and has done much to preserve and cultivate bird life in Germany, both as the organ of numerous societies and independently. During its long life, it has published contributions—many of scientific interest and value—from most of the contemporary ornithologists. It is the oldest and probably the best (German) journal of its class.

DEUTSCHE WISSENSCHAFTLICHE ZEITSCHRIFT FÜR POSEN. **1923–*date.***

Posen, Poland.

DEUTSCHE ZOOLOGISCHE GESELLSCHAFT. *Leipzig.*

1891–*date.* Verhandlungen.

1896–*date.* Tierreich. *Berlin.*

1878–*date.* Zoologischer Anzeiger. *Leipzig.*

1922–*date.* Zoologischer Bericht. *Jena.*

DEUTSCH-OST-AFRIKA.

1893–*date.* 10 vols. to 1909. *8vo and folio. numerous col. pl. and other illust.* *Berlin.*

This magnificent record of the expedition (chiefly) of Emin Pascha into the heart of Africa under German tutelage is replete with valuable contributions to vertebrate zoology. So far as issued one notes that mammals are described by K. Möbius and P. Matschie; birds by A. Reichenow; Reptiles and Amphibia by G. Tornier; Fishes by G. Pfeffer.

DEUXIÈME EXPÉDITION ANTARCTIQUE FRANÇAISE (1908–10) commandée par J. Charcot.

1914. Sciences naturelles: documents scientifiques. [Zoology.] Oiseaux antarctiques. *See* GAIN, L.

DE VERTEUIL, LOUIS ANTOINE AIMÉ.

1858. Trinidad: Its Geography, natural resources, etc. *1 vol. 8vo.* *London.*

DE VIS, CHARLES W.

1894. Report on ornithological specimens collected in British New Guinea. *pp. 7.* With 12 MSS. pages inserted between pp. 4–5. *Brisbane.*

The letterpress is from the Report of the Queensland Museum, 1894.

DE VOE, T. F.

1867. The Market Assistant, etc. *8vo. illust. N.Y.*

DEVON AND CORNWALL NATURAL HISTORY SOCIETY. *See* PLYMOUTH INSTITUTION.

DEWAR, DOUGLAS [1875–].

1906. Bombay ducks; an account of some of the every-day birds and beasts found in a naturalist's Eldorado. *8vo. pp. xii+304. front. 37 pl. T. of c. glossary. index.* *London.*

This well-known naturalist thinks that the animals dealt with have an equal right with the pieces of dried fish called in India 'Bombay Ducks'.

1909. Birds of the plains. *8vo. pp. viii+257. front. 15 pl. T. of c. append. glossary. index.* *London.*

Popular accounts of a number of Indian birds.

[**DEWAR,** D. (*contd.*)]

1911. The Indian crow; his book. 2nd ed., rev. and enl. *8vo. pp. 6+77. 16 figs. T. of c. Madras.*

The first edition of this very interesting and amusing book was issued in 1905. Inserted is a letter to Dr. Casey Wood dated January 3, 1925, from the publishers, regarding the supposed defective page 72.

1913. Glimpses of Indian birds. *8vo. pp. xiv+266. T. of. c. index. London.*

1915. Birds of the Indian hills. A companion volume to the bird volumes of *The Fauna of British India. 8vo. pp. 264. index. London, New York, and Toronto.*

Popular account of common birds found in the Himalayas, Nilgiris, and Palni Hills, mostly taken from newspapers and magazine articles. Appended are vernacular names of Himalayan birds.

1923. Indian birds; being a key to the common birds of the plains of India. A companion volume to the bird volumes of *The Fauna of British India* & Jerdon's *Birds of India. 8vo. pp. 230. T. of c. index. London.*

A popular account for easily identifying the common birds of the plains of India (exclusive of the majority of game birds) based upon a classification according to color, with a list of Hindustani names. The first edition was issued in 1910; the revised edition in 1920.

1923. Himalayan and Kashmiri birds, being a key to the birds commonly seen in summer in the Himalayas & Kashmir. *8vo. pp. 6+7–199+(1). T. of c. index. London.*

1923–5. The common birds of India. *2 vols. 4to. pp. 126 and 128. 2 col. pl. many text-figs. indexes. Calcutta and Simla.*

1924. Birds of an Indian village. 2nd ed. *12mo. pp. 146. col. front. 46 poorly printed cuts in the text. London and Calcutta.*

Issued for the special benefit of Indian readers.

[**1925**]. Indian bird life; or the struggle for existence of birds in India. *12mo. pp. xvi+276. London.*

Largely a compilation of the observations of field naturalists, the nomenclature being that of Blandford and Oates in the bird volumes of the *Fauna of British India*, 1889–98.

1925. The ducks of India, &c. *See* WRIGHT, R. G.

[**1928**]. Birds at the nest. *12mo. pp. (12)+271. T. of c. index. London.*

The author is here chiefly occupied in proving the absence of that intelligence, comparable to the intelligence of human beings, which is so often ascribed to birds. What, however, he exactly means by instinct, to which he credits their actions and mutabilities, seems nowhere clearly stated. Many quotations from various writers of the earliest times to the present day are given to show where the author has obtained his facts to prove his thesis.

1929. Indian Birds' Nests. *8vo. pp. 189.* Companion volume to *Indian Birds.* Key to the *Common Birds of the Plains. Calcutta.*

Contains a summary of practically all the published facts regarding the nests of the birds with which it deals.

DEWAR, GEORGE ALBERMARLE BERTIE [1862–].

[**1902**]. The birds in our wood. *4to. pp. (8)+133. front. (col.). 7 pl. (col., 37 figs.). T. of c. London.*

1913. Wild birds through the year. *12mo. pp. viii+248. front. 7 pl. index. London.*

1925. Nature: the supreme problem. *12mo. pp. 222+[1]. T. of c. London.*

In this little book one gathers that the author is not given to accepting all the preconceived notions regarding the behavior and actions of birds, animals, and insects under certain conditions, many of his observations and remarks seemingly not fitting into these accepted grooves.

DEWAR, JOHN M.

1924. The bird as a diver; a contribution to the natural history of diving birds. *8vo. pp. xii+173. T. of c. bibliogr. index. London.*

An attempt to answer some of the problems of the diving bird, such as how long do they stay under water, how deep can they go, how do they progress and at what speed, and how do they spend their time under water, etc.? Twenty-three species of diving birds and nearly six thousand dives were studied in the course of these investigations.

DEWHURST, HENRY WILLIAM.

1834. The natural history of the order cetacea and the oceanic inhabitants of the Arctic regions. *8vo. pp. 20+323. illust. pl. London.*

DIALOGUS CREATURARUM. *See* ANONYMOUS. (Die) Zweisprach der Tiere, 1923.

DIAS, R. *See* ORIGINAL DRAWINGS, 1878–81.

DICKERSON, MARY CYNTHIA.

1906. The Frog Book. *pp. xvii+253. 112 col. pl. text illust. N.Y.*

An excellent manual, that includes a valuable contribution to fossil amphibia.

DICTIONARY OF AMERICAN BIOGRAPHY.

1929. Prepared under the Direction of the Committee of Management of the American Council of Learned Societies, Allen Johnson, Editor-in-Chief. *20 vols. 8vo. Oxford.*

This valuable work of reference is the counterpart of the well-known British *Dictionary of National Biography* and, like it, forms an indispensable item in every research library.

DICTIONARY OF NATIONAL BIOGRAPHY FROM THE EARLIEST TIMES.

1901–21. With two Supplementary Vols. *23 vols. 8vo. Oxford.*

An indispensable reference work to a library of any pretensions.

DICTIONNAIRE CLASSIQUE D'HISTOIRE NATURELLE, par Audouin, J. V. et Bory de Saint-Vincent, etc. Ouvrage dirigé par ce dernier collaborateur.

1822–30. *17 vols. 8vo. Paris.*

DICTIONNAIRE CLASSIQUE DES SCIENCES NATURELLES, etc.

1837–45. *10 vols. and atlas. 8vo.* *See* DRAPIEZ, P. A. J. *Bruxelles.*

DICTIONNAIRE DES SCIENCES NATURELLES, etc.

[**1804**] **1816–30–[40].** Edited by [Georges] F. Cuvier with a Prospectus by Baron Cuvier and an Introduction by Comte de Fourcroy. *60 vols. 12 vols. col. pl. 1 vol. portr. 8vo. Paris and Strasbourg.*

The above is the second edition of an immense cyclopedia really begun in 1804 and finally completed in 1816 by means of supplements. The present edition includes the interesting 'Biographie des Naturalistes' and was continued in 1840 by an incompleted supplement—one volume of 528 pages with 18 plates [A–Aye].

DICTIONNAIRE PITTORESQUE D'HISTOIRE NATURELLE . . . sous la direction de E. Guérin-Méneville.

1833–9. *8vo. Paris.*

DICTIONNAIRE RAISONNÉ . . . DES TERMES USITÉS DANS LES SCIENCES NATURELLES. *See* JOURDAN, A. J. L.

DICTIONNAIRE UNIVERSEL D'HISTOIRE NATURELLE.
1841–9. *13 vols. and 3 vols. atlas. 8vo.* See D'ORBIGNY, A. C. V. *Paris.*

DIDIER, R. and **BOUDAREL,** A.
1921. L'art de la taxidermie au 20e siècle; recueil de technique pratique pour naturalistes professionnels, amateurs et voyageurs. *4to. pp. 77. 49 pl. 57 figs. T. of c.* *Paris.*
An excellent manual, fully illustrated with explicit figures and diagrams.

DIEDERICH, FRANZ.
1889. Die geographische Verbreitung der echten Raben (Corvinae). *8vo. pp. 162+[4]. 3 maps.* Leipzig University thesis. *Gera.*
An essay on the geographic distribution of the Corvinæ. The copy in hand is a presentation to Prof. Reichenow, to whom it formerly belonged.

DIEFFENBACH, ERNST [1811–55].
1843. Travels in New Zealand; with contributions to the geography, geology, botany, and natural history of that country. *2 vols. 8vo. front. pl.* *London.*
An important travelogue in which J. E. Gray describes the mammals, reptiles, and amphibia, G. R. Gray the birds, and J. Richardson the fishes.

DIENER, CARL [1862–].
1921. Fossilium Catalogus: Animalia. *See* LAMBRECHT, KALMAN. *Berlin.*

DIESCH.
1927. Bibliographie der Germanistischen Zeitschriften.
A valuable bibliography for the student of vertebrate zoology.

DIESSKAU, CHRISTIAN JOHANN FRIEDERICH VON.
1779. Naturgeschichte der Nachtigall. *16mo. pp. (24)+208. vignette. 4 pl. (col., 1 fold.). 4 figs. index.* *Römhild.*
The first part treats of the natural history of the nightingale, the second of its captivity, the third of its food.

DIETHELM, MARZELL.
1907. Über osteologische Charakteristika der Strigiformes; ein Beitrag zur Osteologie der Nachtraubvögel. *8vo. pp. (4)+58. 6 pl. 41 figs. bibliogr. 6 tab.* *Aarau.*
Thesis on the osteology of owls, including a discussion of their relationship to the Night-hawks and Rollers.

DIETRICH, FRIEDRICH.
1912. Die Vogelwelt in der Umgebung von Hamburg; eine Anleitung zu ornithologischen Beobachtungen. *pp. v+116. T. of c.* *Hamburg.*
Narratives of field journeys in which 130 species of birds are treated, with tables of identification.

DIETZ, H. and **PRÜTZ,** G., *eds.*
1883. Die Tümmler- und Purzlertauben. Ein Beitrag zum Mustertauben-Buch. *8vo. pp. [4]+107. T. of c.* *Stettin.*
A contribution to the study and culture of 'tumbler', 'pouter', and other domestic pigeons.

DIEZMANN, AUGUST.
1836. Naturgeschichtliches Cabinet des Thierreiches. *See* JARDINE, W., 1836.

DIFFLOTH, PAUL.
1925. Les Méthodes Modernes en aviculture. Avec 216 [300 on wrapper] figures. *8vo. pp. 2+500. 216 figs. in text. index.* *Paris.*
An elaborate treatise on the breeding, food, housing, and other care of barnyard fowls.

DIGGLES, SILVESTER.
[1866]–77. The ornithology of Australia being illustrations of 244 Australian birds with descriptive letter-press. *2 vols. pl.* Vol. 2 has title 'Companion to Gould's handbook; or Synopsis of the birds of Australia'. In this volume the following genera are treated: Parrots, pigeons and quails, waders, swimmers, etc. Vol. I. 1866? *pp. ix. title, index, preface, prospectus. 58 col. pl., with explanatory text.* Vol. II. 1876. (Title as above.) *pp. vi. 65 col. pl., with explanatory text. index.* *Brisbane.*
A part of this work, semi-popular in character, was, as the author explains, issued in 21 parts prior to 1866, when a financial crisis interfered with further publication. Finally he altered the title and issued the treatise under the title of the present second volume. The copy in hand (which contains the scarce first impressions of the plates) is bound in full morocco gilt as a 'special exhibition copy' and has the rare colored title-page, preface, original prospectus, and index complete. The second volume, probably of later date, was also separately issued.

DIJON. Mémoires de l'Académie des Sciences, etc.
1769–1930. Années.
This very important periodical has appeared, with slight interruption, in series for over 150 years.

DILLWYN, LEWIS WESTON [1778–1855].
1848. Materials for a fauna and flora of Swansea and the neighbourhood. *8vo. pp. (4)+44. T. of c.* *Swansea.*
Data relating to the Mammalia, Ornithology, Ichthyology, Entomology, and Botany, most of which was never published. The portion relating to the birds is on pp. 3–10, embracing about 94 species.

DIONNE, CHARLES EUSÈBE [1846–?1918].
1883. Les oiseaux du Canada. *12mo. pp. 43+284. 35 text-figs. T. of c. index.* *Quebec.*
An annotated, systematic catalogue of the birds of Canada. The present volume is in the original wrappers.

1889. Catalogue des oiseaux de la province de Québec, avec des notes sur leur distribution géographique. *8vo. pp. 119+1. 9 figs. front. index.* *Quebec.*
A brief descriptive catalogue of 273 avian species observed in the Province of Quebec, Canada, with the local names as part of the synonymy.

1906. Les oiseaux de la province de Québec. *8vo. pp. viii+414. 8 pl. 21 figs. in text. index.* *Quebec.*
A well-known, systematic treatise on the birds of Quebec province, Canada, cataloguing the characteristics of 766 species.

DIOSCORIDES, PEDACIUS [*fl.* A.D. 77].
1499. Διοσκοριδου ἀναξαρβεως περι ὕλης ἰατρικης λογοι ἑξ, etc. Edited by A. P. Manutius. *folio. Editio princeps.* No catchwords nor pagination. [O.] *Venice.*
There have been many editions and translations of this the famous materia medica of Dioscorides, the Greco-Roman physician-naturalist.
His catalogue of animals included mainly those whose parts were employed in ancient medical practice, but the incidental description of them as faunal forms is, of course, the chief attraction for the student of vertebrate zoology. Several of the following editions are in the Osler Library.

[1516]. De medicinali materia libri quinque. De Virulentis animalibus, etc., etc. Joanne Ruellio interprete. *folio.* (Parrhisiorum Gymnasio) in off. Henrici Stephani.

[**DIOSCORIDES**, P. (*contd.*)]

1518. De Medica materia Libri sex, Interprete Marcello Virgilio, etc. *folio.* *Florentiæ.*

1529. De Materia medica libri sex . . . [Index omnium Plantarum, Animalium, etc.] Greek text. *4to. pp. 22+446.* (Wanting.) *Basileae.*

1529. De Medica Materia libri V . . . De cano rabido; deque notis quœmorsus ictusve animalium venenum relinquentium sequntur, etc. opera . . . Joannis Soteris. *Colon.*

[**1549**]. Libri sex, Joanne Ruellio interprete . . . Additis . . . annotationibus sine Scholijs . . . Per Gualtherum Rinium, etc. Ant. Conrado Gesnero. *folio.* *Franc(oforti).*

1554. Petri Andreae Matthiolo Commentarii, . . . Adiectis . . . plantarum & animalium imaginibus, eodem authore . . . in off. Erasmiana. *folio.* *Ven.*

1572. Commentaires de Pierre Andre Mattiole sur les six Livres de Ped. Dioscoride Anazarbeen de la Matière médecinale . . . enrichis pur la troisième fois, d'un grand nombre de pourtraits, de plantes & animaux au vif. *folio.* *Lyon.*

1829–30. De Materia medica libri quinque, etc., illustravit Curtuis Sprengel. (Greek and Latin text with biogr., etc.) Tomi 2. *8vo.* *Lipsiae.*

1888. Weber, R. T. De Dioscuridis, etc. (Inaugral dissertation.) *8vo.* *Lipsiae.*

1902. Arzneimittellehre in 5 Büchern. Übersetzt und mit Erklärungen versehen von J. Berebdes. *8vo.* *Stuttgart.*

1903. Premerstein, Anton von. Anicia im Wiener Dioskorides. Kodex. Mit 1 Tafel und 6 Text-illustr. *folio.* *Wien.*

1906–14. De Materia medica libri quinque, etc. Ed. Max Wellmann. *3 vol. 8vo.* *Berol.*

1914. Wellmann (Max). Die Schift des Dioskurides . . . Ein Beitrag zur Geschichte der Medizin. *8vo.* *Berlin.*

n.d. The 3rd Makāla (i.e. 'Discourse', book) of Dioscorides, in the Arabic translation made (? in Spain) by Stephanus ibn Masail; copied at Bagdad by Al-Hasan ibn Ahmad ibu Muhammad al-Našawi. Illustrated: written in A.H. 637 (A.D. 1239). *$9\frac{3}{4} \times 6\frac{3}{4}$ in. v+211 ll.*

'DISCOVERY.' Antarctic Explorations. *See* SCOTT, R. F.

'DISCOVERY' REPORTS.

1925–*date*. Issued by the Discovery Committee, Colonial Office, London, on behalf of the Government of the Dependencies of the Falkland Islands. *4to.* *London.*

Vol. I contains pp. 592, many plates and, *inter alia*, several parts devoted to various branches of zoology. Among these are Southern Blue and Fin Whales, 20 pl., by N. A. Mackintosh and J. F. G. Wheeler, and The Birds of South Georgia, 10 pl., by L. Harrison Matthews.

DISTANT, WILLIAM LUCAS [1845–1922].

1889–92. A monograph of oriental cicadidae. (Indian museum, Calcutta.) *7 pts. in 1 vol. folio. illust. pl.* *London.*

1892. A naturalist in the Transvaal. *8vo. pp. xvi +277. front. 12 pl. (4 col.). 24 figs. T. of c. append. index.* *London.*

A list of the birds will be found on pp. 163–9.

DITMARS, RAYMOND LEE.

1908. The Reptile Book. A comprehensive, popular work on the structure and habits of the Turtles, Tortoises, Crocodilians, Lizards and Snakes, which inhabit the United States and northern Mexico. *8vo. pp. xxxii+472. 136 pl. (col.).* *New York.*

1910. Reptiles of the World. *8vo. pp. 19+373. 90 pl. (1 col.).* *London.*

Full of interesting and original observations by an expert. The American edition, identical with the above, was published in New York.

1914. The Reptile Book. *numerous pl.* *N.Y.*

One of the best popular books, very well illustrated. Another and amended edition of the 1908 issue.

1927. Reptiles of the World, etc. Front. 200 illust. from photos by author. *8vo. pp. 373.* *N.Y.*

A recent edition of this popular text-book by the best known American herpetologists.

DIXON, CHARLES [1858–].

1880. Rural bird life; being essays on ornithology, with instructions for preserving objects relating to that science. *8vo. pp. 16+374. 4 pl. col. front. T. of c.* *Boston.*

Among the earliest of the many popular works on birds by an interesting and informed author. The colored frontispiece and the textual woodcuts are by G. Pearson; a preface by Elliott Coues.

1884. A Contribution to the Philosophy of Birds' Eggs. *8vo.* *London.*

1888. Our rarer birds, being studies in ornithology & oology. *8vo. pp. 14+373. illust. 20 cuts in text.* *London.*

An interesting and popular account of the Chough (*Pyrrhocorax graculus*), the Manx Shearwater (*Puffinus anglorum*), the Garganey (*Anas circia*), and other uncommon British birds.

1890. Annals of bird life; a year book of British ornithology. *8vo. pp. viii+352. front. 3 pl. T. of c.* *London.*

1890. Stray feathers from many birds. Leaves from a Naturalist's Note-book. Six full-page illustrations by C. Whymper. *8vo. pp. 8+231.* *London.*

1891. The birds of our rambles, a companion for the country. Illust. by A. T. Elwes. *8vo. pp. xii+ 249. front. 7 pl. T. of c.* *London.*

1891. Idle hours with nature. *8vo. pp. xii+278. front. T. of c.* *London.*

Popular descriptions of many phases of bird life, such as courting, nest-building, mimicry, etc., together with interesting accounts of numerous shore, game, and cliff birds.

1892. The migration of birds; an attempt to Reduce Avian Season-Flight to Law. *8vo. pp. xvi +300. text-figs. index.* *London.*

An interesting and popular work.

1893. Jottings about birds. *8vo. pp. 8+239. col. front. T. of c.* *London.*

1894. The nests and eggs of British birds, when and where to find them. *8vo. pp. xiv+371. 12 pl. (col., 157 figs. of eggs). T. of c. index.* *London.*

1894. The nests and eggs of non-indigenous British birds or such species that do not breed within the British archipelago. *8vo. pp. xii+368. front. (col., 9 figs. of eggs). T. of c. 2 append. index. London.*

The present work forms the companion volume to the author's *The Nests and Eggs of British Birds*, 1894.

1895. The Migration of British Birds. *8vo. 6 maps. London.*

Another edition.

1895. The game birds and wild fowl of the British islands; being a handbook for the naturalist and sportsman. *8vo. pp. xvi+468. front. (col.). 12 pl. (col.). T. of c. index. London.*

A systematic description of British game birds, with their synonymy, diagnosis, nidification, and other habits and characters. The original edition was issued in 1893 and a second appeared in 1900. The present copy is from the Mullen's Library with book-plate.

1895. Rural bird life of England; being essays on ornithology, with instructions for preserving objects relating to that science. Preface by Elliott Coues. 3rd ed. *8vo. pp. 16+374. 3 pl. 45 figs. T. of c. Chicago.*

1896. British Sea Birds. With eight illustrations by Charles Whymper. *8vo. pp. 295. illust. T. of c. London.*

1897. Curiosities of bird life; an account of the sexual adornments, wonderful displays, strange sounds, sweet songs, curious nests, protective and recognitory colours, and extraordinary habits of birds. *8vo. pp. 322. illust. London.*

1897. Our favourite song birds; their habits, music, and characteristics. *8vo. pp. x+287. 37 pl. T. of c. London.*

1898. Lost and vanishing birds; a record of some remarkable extinct species and a plea for some threatened forms. *8vo. pp. 295. front. 9 pl. T. of c. London.*

1899. Bird-life in a southern county; eight years' among the birds of Devonshire. *8vo. pp. viii+303. front. 10 pl. T. of c. London.*

1900. Among the birds in northern shires. *8vo. pp. 303. front. (col.). 43 pl. T. of c. index. London.*

1900. The game birds and wild fowl of the British Islands. 2nd ed. *pp. xxviii+476. front. (col.). 40 pl. (col.). append. 2 indexes. Sheffield.*

1900. The story of the birds, being an introduction to the study of ornithology. *8vo. pp. 14+304. col. front. T. of c. London.*

This interesting, popular work might well be entitled 'From archeopteryx to bird of paradise'; it is an intelligent account of avian ascent, followed by various studies of the developed bird.

1902. Birds' nests, an introduction to the science of caliology. *8vo. pp. xiv+285. front. 15 pl. T. of c. index. New York.*

A popular work on the various forms and mode of constructing birds' nests.

1909. The bird-life of London. *8vo. pp. xii+335. front. (col.). 23 pl. (7 col.). T. of c. index. London.*

DIXON, EDMUND SAUL [1809–? 81].

1851. The Dovecote and the Aviary. *12mo. pp. xiv+458. 1 pl. text illust. London.*

DIXON, *Capt.* GEORGE [d. 1800].

1789. A voyage round the world; but more particularly to the North-West coast of America. Performed in 1785, 1786, 1787, and 1788, in the King George and Queen Charlotte, captains Portlock and Dixon. *4to. pp. xxix+360+47. front. (chart fold.). 20 pl. (4 birds). T. of c. 2 append. London.*

A popular account. The ornithological matter will be found in Appendix No. 1, pp. 356–60.

DIXON, JOSEPH.

1927. The surf-bird's secret. *4to. pp. 16. front. (col.). 8 figs. bibliogr.* Author's reprint, *Condor*, Jan. 1927. [*Berkeley, Calif.*]

An interesting account of the first discovery of this bird's nest and eggs in Alaska, 1,000 feet above timberline.

DIXON, ROYAL [1885–].

1917. The human side of birds. *4to. pp. 22+246. 4 col. pl. 32 figs. New York.*

A series of popular chapters on the psychology of birds. The author declares his purpose to reject the limitations of unsympathetic research, to endeavor to see beyond formal classifications, and to understand the spirit, emotions, and impulses in the lives of our feathered friends of the air.

DIXON, THOS. J.

1885. Animal Studies. Photographs from Life. *folio.* (Wanting.) *London.*

DÖBELN. *See* MITTEILUNGEN D. VEREIN FÜR NATURFREUNDE.

DOBSON, GEORGE EDWARD [1848–95].

1875. *See* BLYTH, E., 1875.

1878. *See* WESTERN YUNNAN EXPEDITION, 1878.

1878–91. *See* SCIENTIFIC RESULTS SECOND YARKAND MISSION.

1879. *See* ROYAL SOCIETY OF LONDON, 1879.

1882–90. Monograph of the Insectivora, systematic and anatomical. *3 pts. 8vo. pp. 172. 28 pl. index. London.*

DOCKRAY, JOHN A.

1910. The Dee as a wildfowl resort. *See* COWARD, T. A.

DODART, DENIS [1634–1707].

1676. Mémoires pour servir à l'histoire des plantes. *folio. pp. 2+131. front. illust. Paris.*

The cover-title is Dodart: *Mémoires sur les Plantes et Animaux.* A second edition (12mo) appeared in 1679 and a reprint in 1736.

DODERLEIN, PIETRO [–1895].

1869–71. Avifauna del Modense e della Sicilia. *4to. Palermo.*

DODGE'S (GOWAN'S) NATURE BOOKS. *See* GIRDWOOD, G.

DODSON, JOSEPH H.

c. **1917.** Your bird friends and how to win them. *8vo. pp. 24. 47 figs.*

DOERING, ADOLF.

1881. Zoologia. Observaciones generales sobre la Fauna . . . al Rio Negro (Patagonia). *4to. See* ARGENTINE REPUBLIC, COMISIÓN CIENTÍFICA DE LA EXPEDICIÓN AL RÍO NEGRO, 1881–2.

A fairly good account of the animal life of Patagonia.

DOFLEIN, FRANZ JOHN THEODOR [1873–].
1921. Mazedonien; Erlebnisse und Beobachtungen eines Naturforschers im Gefolge des Deutschen Heeres. *8vo. pp. 8+592. illust. pl. Jena.*
Describes the wanton slaughter of birds by the Bulgarian soldiery. Macedonia is one of the portals through which southern birds penetrate into the north. The author obtained a collection of 3,200 well-prepared and docketed birds' skins to furnish a picture of the bird world of Macedonia. Bird portraits are given on pp. 202, 403, 547. The birds of Macedonia do not appreciably reduce the number of blood-sucking flies.

DOG. 1902–3? *Philadelphia.*

DOGDOM; an Illustrated Monthly Dog Magazine. 1900–*date*. *Battle Creek, Mich.*

DOG FANCIER. 1891–*date*. *Battle Creek, Mich.*

DOG JOURNAL. 1908–10? *Rochester, N.Y.*

DOGS IN AMERICA. 1909–12. *New York.*

DOG TIMES. 1906. *London.*

DOG WORLD. 1916–*date*. *Chicago.*

DOHERTY, H. W. *See* CANADA. DOMINION PARKS BRANCH, 1920.

DOHRN, FELIX ANTON [1845–1909].
1876–1930. *See* NAPLES STAZIONE ZOOLOGICA.

1896. Aquarium Neapolitanum. 4th ed. *Leipzig.*
In this well-known description of the famous aquarium and marine aboratory the first Director gives a detailed account of its activities.

DOKI NANDAN. 1900. *See* MAKHZAN-I-ILAJ-I-HAYWANI.

DOLLO, LOUIS [1857–].
1901–13. *See* BELGIUM. 'LA BELGICA'.

1904. Poissons. *folio. pp. 240. 12 pl. maps.* (Belgium. Commission de la Belgica. Expédition antarctique belge. Rapports scientifiques. Zoologie, vol. 9.) *Anvers.*

DOMANIEWSKI, JANUSZ.
1913–18. [Opuscula ornithologica.] *9 vols. in 1. 4to. illust. Warszawa.*

1915. Krytyczny przegląd avifauny Galicyi; część I–a Passeriformes. (Revue critique de l'avifaune de la Galicie.) *folio. pp. 83.* (In Polish.) *Warszawa.*
Author's reprint, a review of the birds of Galicia, 135 species being listed in a definite, systematic fashion, with a list of 93 references to the subject.

1917. Kilka slow o organizacyi Muzeum Zoologicznego przy Muzeum Narodowen w Warszawie. (Quelques mots sur l'organisation du Musée zoologique dans le Musée national de Varsovie.) *folio. pp. 8.* (In Polish.) *Warszawa.*
An account of the formation of a zoological department in the national Polish museum in Warsaw. Author's special excerpt.

1918. Czem jest museum zoologiczne dla systematyka. (Qu'est ce qu'un musée zoologique pour un systématicien?) *folio. pp. 7.* (In Polish.) *Warszawa.*
Author's reprint on the value of a zoological museum to the student of natural history. From the Cabanis-Reichenow collection.

DOMBROWSKI, R. VON.
1912. Ornis Romaniae; die Vogelwelt Rumänien's systematisch und biologisch-geographisch beschrieben. *4to. pp. 872+liv. 2 figs. bibliogr. index. Bukarest.*
See also TSCHUSI ZU SCHMIDHOFEN, VICTOR.
A monograph of the birds of Roumania with descriptions of new races, one of which at least is credited to Tschusi and Dombrowski.

DOMESTIC HABITS OF BIRDS. n.d. *See* ANONYMOUS.

DONALD, CHARLES H.
1917. Companions feathered, furred, and scaled. *12mo. pp. 105. front. 15 pl. Bombay.*
Popular sketches first published in *The Times of India Illustrated Weekly.*

DONALDSON, ALFRED L.
1921. A History of the Adirondacks. *2 vols. 8vo. pp. 776. maps and illust. N.Y.*
The most complete history of this region with a list of the mammals; a List of Adirondack Birds by Robert H. Coleman, and an extensive bibliography.

DONNDORFF, JOHANN AUGUST [1754–1837].
1791–1803. *See* GOEZE, JOHANN A. E.

DONNE, THOMAS EDWARD.
1924. The game animals of New Zealand; an account of their introduction, acclimatization, and development. *8vo. pp. xviii+322. front. 40 pl. map (col. fold.). T. of c. append. index. London.*

1925. The game animals of New Zealand. *London.*
A second printing of this valuable work.

DONOVAN, EDWARD [1768–1837].
1794–1820. Works on British Zoology, complete except for the Birds. Original eds. throughout. *29 vols. in 21.*
In addition to the above, this celebrated naturalist's treatises are separately shelved in the McGill libraries, as hereinafter described.

1794–1819. The natural history of British birds; or, A selection of the most rare, beautiful, and interesting birds. *10 vols. in 5. 4to. 244* (i.e. *245*) *col. pl.* Each plate accompanied by from 1–6 pp. of descriptive letterpress. Vol. I (1794), *24 pl.* Vol. II (1795), *24 pl.* Vol. III (1796), *24 pl.* Vol. IV (1797), *28 pl.* Vol. V (1798), *24 pl.* Vol. VI (1809), *24 pl.* Vol. VII (1816), *24 pl.* Vol. VIII (1817), *24 pl.* Vol. IX (1818), *24 pl.* Vol. X (1819), *24 pl. = 244 pl. in all. London.*
A classic work on the subject which, however, with the exception of many well-made plates, is not highly regarded as an authority. The volumes were issued to subscribers in parts, 50 in all. Mullens and Swann (p. 174) say that owing to the irregular and confused fashion in which these parts were issued they make no attempt to collate the text but give the plate contents and dates as above. The entire work was reissued in 1815–20; five volumes only, in 1799.

1802–8. The natural history of British fishes, including scientific and general descriptions of the most interesting species, and an extensive selection of accurately finished coloured plates. Taken entirely from original drawings. *5 vols. 8vo. 120 col. pl. London.*

1815–20. The Natural History of British Birds, etc. *10 vols. 4to. London.*
This is the second edition.

1820. The natural history of British quadrupeds; consisting of coloured figures, accompanied with scientific and general descriptions, of all the species

that are known to inhabit the British Isles . . . and also such as are clearly authenticated to have been originally indigenous, but are now extirpated, or become extremely rare; the whole arranged in systematic order, after the manner of Linnæus. *3 vols. 4to. 72 col. pl.* *London.*

This first edition is rare; not listed in the *Cat. Br. Mus.* (*Nat. Hist.*).

1826. The natural history of the nests and eggs of British Birds. *8vo.* Five parts (all pub.). *London.*

Apparently a separate publication which must be very scarce. It is not on the list of the author's works in the *Cat. Br. Mus.* (*Nat. Hist.*).

1834. The naturalist's repository; or, Miscellany of exotic natural history, exhibiting rare and beautiful specimens of foreign birds, insects, shells, quadrupeds, fishes, and marine productions; more especially such new subjects as have not hitherto been figured, or correctly described. *5 vols. 8vo. 180 pl. with text. T. of c. indexes.* *London.*

Originally issued in monthly parts, 1823–7. The present edition consists of 180 fine colored plates accompanied usually by one to three leaves of text, these pages not being numbered in any of the, volumes. Of the above 180 plates only 26 are devoted to birds. 11 in vol. I, 8 in vol. II, 5 in vol. III, 2 in vol. IV, and none in vol. V. Very rare. Not in the *Cat. Br. Mus.* (*Nat. Hist.*).

D'ORBIGNY, ALCIDE CHARLES VICTOR DESSALINES [1806–76].

1837. Dictionnaire universel d'Histoire naturelle. *13 vols.* (*text*) *and 3 vols.* (*atlas*). *8vo. 288 col. pl. containing many hundred figures.* Issued in parts. *Paris.*

The plates in this remarkable work render it the best illustrated encyclopedia of natural history. The articles were contributed by the leading French savants: Arago, Brongniart, D'Orbigny, Milne Edwards, Geoffroy-Saint-Hilaire, Deshayes, Lucas, Montagne, Prévost, Quatrefages, Valenciennes, and others.
First edition published in 1837. There were several reissues.

D'ORBIGNY, ALCIDE DESSALINES [1802–57].

1835–47. *See* VOYAGE DANS L'AMÉRIQUE MÉRIDIONALE, 1835–47.

1837–8. Synopsis avium, in ejus per Americam meridionalem itinere, collectarum et ab ipso viatore necnon a de Lafresnaye in ordine redactarum. *2 vols. in 1. 8vo.* *Paris.*

1839. Aves [de la isla de Cuba]. *pp. 220. pl.* (In Sagra, Ramon de la, *Historia fisica politica y natural de la isla de Cuba*, 1839, vol. 2.) *Paris.*

1839. Ornithologie de l'Isle de Cuba.

The author was one of the most celebrated and best educated naturalists of the early nineteenth century and his works include a number of general treatises of great importance—especially to Americans. He wrote the Cuban memoir after his return from South America. The title above is practically a translation of that portion of the author's contribution to the Aves of R. de la Sagra's *Historia . . . de la Isla de Cuba*, 1839–53.

1852. *See* BUFFON, G. L. L., 1852.

DORNER, H.

1872. Die Papageien-Austellung der zoologischen Garten zu Hamburg. *1 vol. 8vo.* (Wanting.)

DORPATER NATURFORSCHER-GESELLSCHAFT. *See* ARCHIV FÜR DIE NATURKUNDE EESTIS; *also* TARTU, ESTONIA.

DORSET NATURAL HISTORY AND ANTIQUARIAN FIELD CLUB. *Dorchester.*

1877–*date.* Proceedings. *8vo.* *Sherborne.*

DORSEY, GEORGE A.

1927. The Evolution of Charles Darwin. *N.Y.*

A brief life of the great naturalist and an accurate account of his philosophy, by a noted American anthropologist.

DOUBLEDAY, HENRY [1808–75].

1836. A nomenclature of British birds; being a systematic catalogue of all the species hitherto discovered in Great Britain and Ireland intended for labelling collections of British birds and their eggs. *8vo. pp. iv+28.* *London.*

The above is the author's autographed, used copy with the original wrappers bound in.

DOUBLEDAY, *Mrs.* NELLIE (born DE GRAFF) [1865–1918]. *See also* BLANCHAN, NELTJE.

1898. Bird neighbours. Introduction by John Burroughs. *8vo. pp. viii+234. front.* (*col.*). *51 pl.* (*col.*). *T. of c. index.* *London.*

The author's *nom de plume* is Neltje Blanchan. The above is a popular account of the commoner North American birds. The date of the American edition is 1901.

1902. How to attract the birds, and other talks about bird neighbours. *8vo. pp. vi+224. front. 20 pl. 88 figs. T. of c. index.* *New York.*

[*c.* **1904**]. Birds that hunt and are hunted. *pp. xii+359. front.* (*col.*). *23 pl.* (*col.*). *T. of c. index.* *New York.*

Although written in a great measure for sportsmen it is the hope of the author that after perusal they may be inclined to hunt less with the gun and more with the camera.

1912. Birds [every child should know]. *8vo. pp. 281. front. 31 pl.* (*71 figs.*). *T. of c. index.* *Garden City, N.Y.*

1916. Bird neighbours. *4to. pp. 24+234. pl.* *Garden City.*

A reissue of the first edition, 1898.

1916. Game birds. Life histories of one hundred and seventy birds of prey, game birds and waterfowls. *8vo. pp. 13+359. front.* (*col.*). *47 pl.* (*col.*). *T. of c. index.* *New York.*

[**1917**]. Canadian birds worth knowing. *pp. xii+257. front.* (*col.*). *47 pl.* (*col., 1 on cover*). *T. of c. index.* *Toronto.*

Popular accounts of some 50 birds, abstracted from the author's four previous volumes on birds. The illustrations are those of the National Association of Audubon Societies by various artists, Louis Agassiz Fuertes, Bruce Horsfall, *et al.*

1922. Birds worth knowing. 2nd ed. *8vo. pp. xii+257. front.* (*col.*). *46 pl.* (*col.*). *T. of c. index.* *New York.*

DOUGHTY, CHAS. M.

1888. Travels in Arabia deserta. *2 vols. 8vo. illust.* (*col.*). *Cambridge.*

An important work for the zoologist, several times reprinted.

[**1923**]. Travels in Arabia deserta. *2 vols. 8vo. illust.* (*col.*). *London.*

1926. Travels in Arabia deserta. *2 vols. 8vo. illust.* (*col.*). *London.*

DOUGLAS, A. J. A. and **JOHNSON,** P. H.

1926. The South Seas of To-Day. *8vo.*

The natural history is given some attention.

DOUGLASS, ARTHUR.

1881. Ostrich Farming in South Africa, etc. *8vo. pp. viii+251. 10 pl. 1 map.* *London.*

DOVER NATURAL HISTORY SOCIETY.
See SOUTH EASTERN NATURALIST.

DOVER SCIENCES SOCIETY.
Dover, England.
1880–91. As Dover Field Club and Natural History Society.

1892–8. As Dover Natural History and Antiquarian Society.

DOWKER, GEORGE [1828–99].
1889. A Tabulated List . . . of the Birds of Kent, etc. *8vo.* *London.*

DOWNE, T. E.
1924. The Game Animals of New Zealand. An Account of their Introduction, Acclimatization and Development. *illust.* *London.*
The first extensive work of its kind, with many figures of New Zealand faunae, native and imported.

DOWNING, ELLIOT ROWLAND [1868–].
1924. Our living world, a source book of biological nature-study. 2nd ed. *8vo. pp. xxi+(1)+503. front. 338 figs. T. of c. bibliogr. append. index.* *Chicago.*
The portion relating to birds is chapter IV, pp. 141–91, with 40 illustrations. The first edition was published in May 1919.

D'OYLY, *Sir* C.
1829. Oriental ornithology. *See* SMITH, C. W.

DRAKE-BROCKMAN, RALPH EVELYN.
1910. Mammals of Somaliland. *8vo. pp. 17+201. 19 pl. illust. text.* *London.*
A useful contribution to African mammalogy.

DRAPIEZ, PIERRE AUGUSTE JOSEPH [1778–1856].
1819–21. *See* ANNALES GÉNÉRALES DES SCIENCES PHYSIQUES.

1837–45. Dictionnaire classique des sciences naturelles. Vols. 1–10 and Atlas. *202 col. pl.* *Brussels.*

DRAWINGS, ORIGINAL. *See* ORIGINAL DRAWINGS.

DRAYTON, MICHAEL.
[1613–22]. Poly-olbion or a Chorographical Description of Great Britain. 1st ed. *folio.* (Incomplete.) *London.*
This is a poem with several contributors, the second part devoted to birds.

DRESDEN. Allgemeine Deutsche naturhist. Zeitung. Hrsg. v. d. Ges. Isis in Dresden. 2 Bde. 1846–7. Neue Folge. 3 Bde. 1855–7. Denkschriften d. naturw. Ges. Isis 1860. (Sitzungsberichte u. Abhdlgn. 1861–1915.) Festschr. 1885 u. Sonderheften.

DRESDEN MUSEUM FÜR TIERKUNDE UND VOLKERKUNDE.
1886–*date.* Abhandlungen und Berichte.

1875–8. Mittheilungen.

1881–1903. Publicationen.

DRESDEN. Verein sächsischer Ornithologen.
1927–8. Mitteilungen. *pts. 1–4 in 1. 8vo.* *Bernburg.*

DRESDEN. K. Zoologisches und Anthropol.-Ethnographisch. Museum.
1877–8. Mittheilungen.

1886–1930. Abhandlungen u. Berichte.

DRESSER, HENRY EELES [1838–1915].
1871–90. A history of the birds of Europe, including all the species inhabiting the western palæarctic region. *9 vols. and 1 vol. wrappers. col. pl. gen. index.* *London.*
This magnificent treatise, beautifully illustrated by Jos. Wolf, J. G. Keulemans, and other well-known artists, was irregularly issued in 84 parts and a supplement in 9 parts.
[Vol. I], General Index. Vol. I, *pp. i–ii, ix–xiii+1, iii–xlvi+102.* Vol. II, *pp. viii+322 ll. 95 col. pl. 2 text-figs.* Vol. III, *pp. viii+310 ll. 86 col. pl. 1 text-fig.* Vol. IV, *pp. viii+318 ll. 90 col. pl. 2 pl. 4 text-figs.* Vol. V, *pp. viii+334 ll. 90 col. pl. 6 text-figs.* Vol. VI, *pp. viii+354 ll. 92 col. pl. 8 text-figs.* Vol. VII, *pp. viii+330 ll. 88 col. pl. 1 pl. 4 text-figs.* Vol. VIII, *pp. viii+333 ll. 89 col. pl. 2 text-figs.* Vol. IX, supplement.
The set in hand, from the Cholmley Library, has several letters from the author relating to his work, and the wrappers, on which appear corrections in the text, are bound together as a supplementary volume.

1876. *See* EVERSMANN, EDUARD FRIEDRICH.

1884–6. A monograph of the *Meropidæ*, or family of the bee-eaters. *4to. pp. xix+144. 34 pl. (col.). T. of c. index.* *London.*
Illustrated with fine hand-colored plates by J. G. Keulemans. Introductory notes on the anatomy and osteology are furnished by Frank E. Beddard. The work was issued in five parts, the covers of which are bound in at the end of the present volume.

1893. A monograph on the *Coraciidæ*, or family of the rollers. *4to. pp. xix+111. 27 pl. (col.). T. of c. index.* *Farnborough.*
A companion volume to the author's *A monograph of the Meropidæ*, 1884–6, which was begun before the issue of the last-named work. It is a thorough detailed study of the group, the notes on the anatomy and osteology being supplied by Frank E. Beddard and the beautiful hand-colored drawings by J. G. Keulemans.

1902–3. A manual of palæarctic birds. *2 vols. 4to. pp. 7+498; 499–922. index; also systematic index to both vols.* *London.*
Synonymy, brief notes, and description of over 1,200 species of Palearctic birds. Binomial classification is given of subspecies. A prefatory list is furnished of works chiefly consulted by the writer.

1905–10. Eggs of the birds of Europe including all the species inhabiting the western palaearctic area. *2 vols. 4to.* Vol. I, *pp. xx+837. 167 figs. T. of c. append. 2 indexes.* Vol. II, *pp. (154). 106 pl. (col.).* *London.*
This work was published in 24 parts, the first in August 1905 and the last two in November 1910. Pages 1–505 require rearranging according to the table in vol. I, giving the original and revised numeration. A detailed account is given of the nesting habits and breeding ranges of European birds with half-tones of the nests and nesting sites; also colored figures of the eggs *ad naturam.* The present copy has the original covers of the parts bound in.

DRIENDL, TH.
1850. Naturgeschichte der Amphibien und Fischen. *4to. 21 col. lith.* (Wanting.) *Munich.*

DROSTE-HÜLSHOFF, FERDINAND [1871–4].
1869. (Die) Vogelwelt der Nordseeinsel Borkum; nebst einer vergleichenden Übersicht der in den südlichen Nordseeländern vorkommenden Vögel. *8vo. pp. 20+390+16. 2 pl. map.* *Münster.*
Notes on the varieties, habits, migration, range, and other characteristics of the bird life of Borkum island in the North Sea. Supplements deal with the comparative history of these local birds and those of other localities. The copy under notice is a present from the author to P. L. Sclater.

DRUEMPELMANN, ERNST WILHELM.
1806–14. Getreue Abbildungen . . . des Thierreichs aus den nördlichen Provincen Russlands, etc. Hefte I–VI. *folio. 50 col. pl. with descriptive letterpress.* *Riga.*

DRUMMOND, HENRY [1851–97].
1888. Tropical Africa. *pp. x+(2)+228. front. (map, col. fold.). 4 pl. 5 maps (col. fold.). 5 figs. T. of c.* *London.*
Lecture-notes in popular form, with natural history, of East Central Africa.

1888. Tropical Africa. Authorized edition. With six maps, and illustrations. *8vo.* *New York.*
American edition published with very slight alterations in the title-page.

DRUMMOND, JAMES [1869–].
1904. The animals of New Zealand, &c. *See* HUTTON, F. W.

n.d. Nature in New Zealand. *12mo. pp. (6)+7–188. front. 98 figs. T. of c. index.* *Christchurch.*
Based on articles in the *Lyttelton Times* during 1901. The bird life of the island is dealt with in chapters I–VI, pp. 7–52.

DRUMMOND, MARY.
1919. *See* FARWELL, E. D.

DRUMMOND, WILLIAM HENRY [1845–79].
1875. The large game and natural history of South and South-East Africa. *8vo. pp. xxi+428. front. (col.). vignette (col.). 11 pl. (col.). 20 figs. (1 col.). 1 map (col.). T. of c. 2 append. index.* *Edinburgh.*
One of a numerous class of books whose only excuse for the murder of wild animals, most of them defenceless, is the description of their bodies that sometimes (as in this instance) has scientific value.

DRYANDER, JONAS [1748–1810].
1796–1800. Catalogus Bibliothecæ historico-naturalis Josephi Banks. *5 vols. 8vo.* [O.] *London.*
This valuable bibliographic work by the Librarian of the Royal Society has passed through half a dozen editions and amendments and is a most useful reference treatise for the student and librarian.

1798–1800. *See* BANKS, JOSEPH, 1798.

DUBLIN MICROSCOPICAL CLUB. *Dublin.*
1873–85. Minutes of the Proceedings.

DUBLIN NATURAL HISTORY SOCIETY.
See NATURAL HISTORY SOCIETY OF DUBLIN.

DUBLIN NATURALISTS' FIELD CLUB.
1887?–*date*? Report.

DUBLIN QUARTERLY JOURNAL OF SCIENCE. *See* NATURAL HISTORY REVIEW.

DUBLIN. *See* NATURAL HISTORY SOCIETY OF DUBLIN.

(ROYAL) DUBLIN SOCIETY.
1889–*date*. Economic Proceedings.

1856–78. Journal.

1835–56. Proceedings.

1877–1902. Scientific Transactions.

1799–1810. Transactions.

DUBLIN UNIVERSITY ZOOLOGICAL AND BOTANICAL ASSOCIATION.
1857–60. Proceedings.

1853–60. As Natural History Review, Dublin.

DUBOIS, ALPHONSE [1839–?1910].
1868–72. Les oiseaux de l'Europe et leurs œufs. *See* DUBOIS, C. F., 1854–60.
This second series of an important treatise was continued in conjunction with C. F. Dubois.

1871. Conspectus systematicus et geographicus avium Europaearum. *4to. pp. 35.* *Brussels.*
In addition to a long list of *varietates climactericae* there are on this roster 253 genera and 575 species of European birds. A brief note of their distribution is also given—a useful catalogue.

1876–94. Faune Illustrée des Vertébrés de la Belgique. *4 vols. (2 vols. text. atlas, 2 vols.). 8vo.* *Bruxelles.*

[1889]. Compte rendu des observations ornithologiques faites en Belgique pendant les années 1887–89. *8vo. pp. 58.* *Bruxelles.*
A separately issued systematic, descriptive catalogue of Belgian birds, with special reference to their local distribution; mostly reports from ornithological observatories.

1899–1904. Synopsis avium. Nouveau manuel d'ornithologie. *2 vols. 4to. T. of c. index.* Paged continuously. Vol. I, *pp. xvi+729. 12 pl.* (col. by author). Vol. II, *pp. x+731–1339. 4 pl.* (col. by author). *Brussels.*
This valuable work was issued in 17 parts. The dates of issue run from Oct. 1899 to Aug. 1904. A list of avian species with their synonyms and a marginal record of distribution form the chief part of the treatise. The copy in hand is from the Reichenow-Cabanis collection in the E.S.W. Library.

1905. Remarques sur l'ornithologie de l'État indépendant du Congo suivies d'une liste des espèces recueillies jusqu'ici dans cet état. *folio. pp. 6+38. 12 col. pl.* (*Annales du Mus. du Congo. Zoologie,* sér. 4, vol. 1, fac. 1.) *Bruxelles.*
A systematic regional list is given (in tables) of 483 species observed in the Congo, together with descriptive text of the unusually fine, colored plates. The copy in hand is a presentation from the author.

1905–14. Genera Avium. *See* WYTSMAN, P., 1905–14.

DUBOIS, CHARLES FRÉDÉRIC [1804–67].
1839. Ornithologische Gallerie, etc. *8vo. col. pl.* (Wanting.) *Aachen and Leipzig.*

1854–60. Planches Coloriées des Oiseaux de la Belgique et leurs Œufs. *3 vols. 8vo. col. illust.* *Bruxelles.*
This important monograph is continued as *Les Oiseaux de l'Europe et leurs Œufs* par C. F. Dubois . . . et A. Dubois . . . *Deuxième Série, espèces non observées en Belgique.* 2 vols.

1866. Catalogue systématique des Oiseaux de l'Europe. *8vo. pp. 16.* *Brussels.*

1868–72. Les oiseaux de l'Europe et leurs œufs. 2e sér. Espèces non observées en Belgique. *2 vols. 4to. 202 col. pl. T. of c. index.* Vol. I, 1868. *106 col. pl. portr.* Vol. II, 1872. *col. pl. 107–202.* *Brussels.*
This fine work is a continuation of the elder Dubois' *Planches coloriées,* 1854–60. That work was confined to Belgian birds and their eggs, while these two volumes are entirely devoted to the European avifauna unobserved in Belgium. The present treatise was issued in parts, some irregularly, which accounts for the confused numbering of the plates, all of which in the copy in hand are colored. Dubois *père* died in 1867 leaving the completion of the work to his son.

DU BUS DE GISIGNIES, BERNARD LÉONARD [1808–74].
1845–8. Esquisses Ornithologiques; Description et Figures d'oiseaux nouveaux ou peu connus. 4 livr. (all pub.). *4to. 37 col. pl.* *Bruxelles.*

1876. Catalogue des livres composant la Bibliothèque, etc. *pp. 256.* *Bruxelles.*

DU CHAILLU, PAUL BELLONI [1838–1903].

1861. Explorations and Adventures in equatorial Africa; with accounts of the Gorilla . . . and other animals. *8vo. pp. xviii+479. 27 pl. 1 map. text illust.* *London.*

1900. The world of the great forest; how animals, birds, reptiles, insects talk, think, work, and live. *8vo. pp. xv+323. front. 10 pl. 39 figs. T. of c. glossary.* *New York.*

To enable the reader to enter into the life of the great African Forest, the author has made the animals and birds tell their own stories and explain their own actions as if they were endowed with the power of speech.

DUCK, JOHN N.

1852. Natural History of Portishead, etc. *12mo. pp. 65. 3 pl. 1 map (col.).* *Bristol.*

DUCKWORTH, WILLIAM and **MACPHERSON,** H. A.

1886. The birds of Cumberland. *See* MACPHERSON, H. A.

DU FOILLOUX, JACQUES [*c.* 1521–80].

1615. La Caccia di Giacomo di Foglioso. *Milano.*

A very rare treatise on hunting.

DUGDALE, FLORENCE E.

n.d. The book of baby birds. *4to. pp. 120. front. (col.). 18 pl. (col.). T. of c.* *London.*

DUGMORE, ARTHUR RADCLYFFE [1870–].

1904. Bird homes. The nests, eggs and breeding habits of the land birds breeding in the eastern United States. *8vo. pp. xvi+183. front. (col.). 47 pl. (15 col.). 11 figs. T. of c. 2 indexes.* *New York.*

The first edition of this work was issued in 1900, another in 1920, neither of which differs materially from the present one.

1912. Wild life and the camera. *8vo. pp. xi+332. front. 47 pl. T. of c. index.* *London.*

Devoted to nature photography and accounts of the habits and behavior of animals.

1913. The romance of the Newfoundland caribou; an intimate account of the life of the reindeer of North America, . . . illustrated with paintings, drawings and photographs from life by the author. *pp. viii+191. col. front. 65 pl. fold. map. figs. in text.* *London.*

1914. The romance of the beaver, being the history of the beaver in the Western hemisphere. *8vo. pp. 14+255. illust. pl.* *London.*

1925. The wonderland of big game. *illust.* *London.*

[**1926**]. The vast Sudan. [2nd ed.] *8vo. pp. 311+(1). front. 45 pl. (3 maps, 1 fold.). T. of c. index.* *London.*

An interesting account of the author's trip through this vast country, in which there are many references to its abundant fauna. Birds are listed on page 262. The first edition was published in 1924.

DUMÉRIL, ANDRÉ MARIE CONSTANT [1774–1860].

1806. Zoologie analytique, ou Méthode naturelle de classification des animaux, rendue plus facile à l'aide de tableaux synoptiques. *8vo. pp. 32+344.* *Paris.*

1825. Élémens des Sciences naturelles. *2 vols. 8vo. illust.* *Paris.*

This is really the third edition of the author's *Traité élémentaire d'Histoire Naturelle*, published in 1804, soon to be followed by his well-known works on classification and comparative anatomy.

**** and **BIBRON,** GABRIEL.

1834–54. Erpétologie générale ou histoire naturelle des reptiles, etc. *9 vols. and atlas. pp. 6,600. 120 col. pl.* *Paris.*

Among the most important and fundamental of the large treatises on reptilian life, including the amphibia.

1839. Élémens des sciences naturelles. 3e éd. *8vo. pp. 11+[1]+335. pl.* *Bruxelles.*

A new edition of Duméril's *Natural History*, accompanied by plates to illustrate structural details.

1856. Ichthyologie analytique . . . une Classification naturelle des Poissons. *4to. pp. 8+507.* *Paris.*

An important contribution to ichthyology in general. Author's separate from Tome XXVII, *Mém. Acad. Sc. Paris.*

DUMÉRIL, AUGUSTE HENRI ANDRÉ [1812–70] and **BOCOURT,** FIRMIN.

1870–1909. Études sur les reptiles et les Batraciens. *folio and atlas. pp. 2+1012. See also* MISSION SCIENTIFIQUE AU MEXIQUE ET DANS L'AMÉRIQUE CENTRALE. *Paris.*

DUMFRIESSHIRE AND GALLOWAY NATURAL HISTORY AND ANTIQUARIAN SOCIETY. *Edinburgh.*

1862–8. Transactions. Series 1.

1876–1912. Transactions. Series 2.

1913–*date.* Transactions. Series 3.

DUMONT D'URVILLE, JULES SÉBASTIEN CÉSAR [1790–1842].

1826–9. Voyage autour du Monde . . . sur La Coquille pendant . . . 1822–5. *4to and folio. See* VOYAGES, FRENCH. *Paris.*

1830–5. Voyage de . . . l'Astrolabe . . . pendant 1826–29, etc. *See* VOYAGES, FRENCH. *Paris.*

1841–54. Voyage au pôle sud et dans l'Océanie sur les corvettes l'Astrolabe et la Zélée . . . pendant les années 1837–1838–1839–1840. *23 vols. 8vo. and folio. See* VOYAGES, FRENCH. *Paris.*

DUMONTEIL, FULBERT [1831–?1900].

n.d. Animaux et Plantes. 2nd ed. *pp. 396. illust.* *Paris.*

DUNCAN, JOHN.

1898. Birds of the British Isles. *8vo. pp. xvi+456. front. 1 pl. 386 figs. in text. append. index.* *London.*

The appendix contains the names of birds whose title to be included in the British list is doubtful. A number of this author's original drawings are in McGill.

1903–5. *See* ORIGINAL DRAWINGS. DUNCAN, JOHN, 1903–5.

DUNCAN, PETER MARTIN [1824–91].

1876. *See* CASSELL'S NATURAL HISTORY. Edited by P. M. Duncan. *6 vols. 4to. illust.* *London.*

This excellent popular cyclopedia contains parts on all sections of natural history, the vertebrates treated by P. M. Duncan, except the Aves, by R. B. Sharpe.

1883–5. *See* SCIENCE LECTURES.

DUNDEE UNIVERSITY COLLEGE—MUSEUM OF ZOOLOGY.
1888–90. Studies.

DUNLOP, A. A.
1845–51. Crumbs; being ms. notes and newspaper clippings on the natural history of India. *2 vols.*
Original observations on the habits of the birds and mammals of India, describing the care of the young, the swimming of tigers, and other interesting happenings.

DUNN, Emmett Reid.
1926. The Salamanders of the Family Plethodontidae. *8vo. pp. viii+441. 1 pl.* *Southampton, Mass.*

DUNN, Robert.
1837. The ornithologist's guide to the islands of Orkney and Shetland. *8vo. pp. 10+128. 2 maps. 1 fold. pl.* *London.*
A collector's account of the bird life on the islands.

DUNS, John [1820–?91].
n.d. Biblical natural science; being the explanation of all references in Holy Scripture to geology, botany, zoology, and physical geography. *2 vols. 4to.* Vol. I, *pp. vi+575. front. 20 pl. 2 maps (fold.). 111 figs. 2 indexes.* Vol. II, *pp. vi+624. 23 pl. 7 maps and plans (4 col. fold.). 195 figs. bibliogr. 3 indexes.* *London.*

DUPERREY, Louis Isidore [1786–1865].
1826–30. Voyage autour du monde sur la corvette la Coquille, 1822–25. *10 vols. in 9. 4to and folio. pl. tab. maps.* Zoologie par R. P. Lesson, Prosper Garnot et F. E. Guérin-Méneville. *Paris.*
This work was not completed. For fuller contents see *British Museum Cat. (Nat. Hist.)*, vol. 2, p. 604.

DU PETIT-THOUARS, Abel Aubert [1793–1864].
1840–55. Voyage autour du Monde sur la frégate La Vénus. *11 vols. text. 8vo. atlas. large folio.* Tome V. Zoologie, by Saint-Hilaire, F. Prevost, O. Des Murs, Duméril, *et al.* *Paris.*

DU PRATZ, Le P.
1758. Histoire de la Louisiane, etc. *3 vols. 12mo.* (Wanting.) *Paris.*

DURAZZO, Carlo.
1840. Degli uccelli Liguri notizie. *8vo. pp. 6+95. 2 pl. index.* *Genova.*
A local distributional list, giving both the systematic and vulgar names.

D'URBAN, W. S. M. and **MATHEW,** M. A.
1892. The birds of Devon. *8vo. pp. 87+459. front. (col.). 8 pl. (4 col.). 3 maps. T. of c. addenda. index.* *London.*
292 species are recorded.

1895. The Birds of Devon. 2nd ed. with supplement. *London.*
The library copy is extra-illustrated by the insertion of 30 col. pl. from Lilford's *British Birds.*

DURHAM. *See* NATURAL HISTORY SOCIETY OF NORTHUMBERLAND, etc.

DÜRIGEN, Bruno [1853–?1924].
1886. Die Geflügelzucht nach ihrem jetzigen rationellen Standpunkt. *8vo. pp. xiii+880. 80 pl. 101 figs. T. of c. index.* *Berlin.*
An exhaustive, well-illustrated treatise on poultry raising, including fowls, turkeys, quails, swans, pigeons, ducks, and geese. Most peculiar is the naked-neck fowl, *Gallus domesticus nudicollis*, from Hungary, which came into notice as recently as 1875.

1897. Deutschlands Amphibien u. Reptilien. *8vo. pp. 684. 12 col. pl. and 47 text-figs.* *Magdeburg.*
One of the best contributions to the modern history of mid-European amphibia and reptiles.

DÜRKEN, Bernard [1881–].
1919. Einführung in die Experimental-Zoologie. *8vo. pp. 10+446. illust.* Bibliography, pp. 404–27. *Berlin.*

1928. Lehrbuch der Experimental-Zoologie; experimentelle Entwicklungslehre der Tiere. 2te Aufl. *4to. pp. 12+782. illust.* Bibliography, pp. 690–750. *Berlin.*

DURNFORD, W. Arthur.
1883. List of birds found in the neighbourhood of Walney Island [Lake District, England], with notes. *8vo. pp. 20.* *Barnsley.*

DÜSSELDORF. Naturwissenschaftlicher Verein.
1884–1913. Mitteilungen 1–5 (all pub.).

DUTT, W. A.
1903. The Norfolk Broads. (Wanting.) *London.*

DUTTON, F. G.
1884–7. Parrots in captivity with notes on several species. *See* GREENE, W. T.

DWIGHT, Jonathan, *Jr.* [1858–1929].
1895. The Ipswich sparrow and its summer home. *4to. pp. 56. 1 col. pl. index.* Author's separate, being Memoir 11, Nuttall Ornithological Club. *Cambridge, Mass.*
A well-known monograph with an excellent bibliography.

1895. The code of nomenclature adopted by the American ornithologists' union. [By a committee of the Union (J. Dwight, etc.).]
Dr. Dwight also served on the committee for most of the code revisions, including that of 1910.

DYREVAERNEFORENINGEN 'SVALEN'.
Aarsskrift for **1916–18.**
This periodical is now published as the organ of a Society for the Protection of Animals generally.

EAGLE, THE.
1891. Vol. I, No. 1. April. (All issued.) *4to.* *Frankfurt, Ind.*

EALAND, Charles Aubrey [1877–].
1926. The marvels of animal ingenuity; an interesting account of the curious habits & homes of many animals, birds & insects. *8vo. pp. 252. front. 7 pl. T. of c.* *London.*
The contents of this volume are drawn from the author's larger volume entitled *Animal Ingenuity of To-Day.* The principal references to birds occur under the following headings: mimicry, p. 107; ground and underground nests, pp. 109–22; nests in trees, pp. 123–35; birds' eggs, pp. 136–44; plumage and its meaning; courtship, and migration, etc.

EALING MICROSCOPICAL AND NATURAL HISTORY SOCIETY. *Ealing.*
1909–15. Transactions.

EAST AFRICA AND UGANDA NATURAL HISTORY SOCIETY. *Nairobi.*
1910–*date.* Journal. *London.*

EASTBOURNE NATURAL HISTORY SOCIETY. *Eastbourne, Eng.*
1870–81. Transactions. Series 1.

1881–1917? Transactions. Series 2.

EASTERN PERSIA.
1876. An account of the Journeys of the Persian Boundary Commission, 1870–71–72. *2 vols. 8vo.* Vol. I. The Geography, with Narratives by Majors St. John, Lovett and Euan Smith. Vol. II. The Zoology and Geography by W. T. Blanford. Numerous coloured maps and plates. *pp. 437+516. indexes.* *London.*

This classic work furnishes the best description of the fauna of Persia published to date. Blanford (and Major St. John) give a complete and scientific review of the subject, bibliography included, illustrated (with Keulemans' drawings) by 28 colored plates depicting the animal life of the country. Fish and invertebrates are few in number, the notes being chiefly confined to Mammals (32 species), Birds (248 species), Reptiles (62 species), and Amphibia (5 species), comprising in all over 2,000 specimens. *See also* BLANFORD, 1876. The volumes were issued at the expense of the Government of India.

EAST INDIA COMPANY.
1854–8. A catalogue of the birds in the museum. *See* HORSFIELD, T. and MOORE, F.

EAST KENT SCIENTIFIC SOCIETY. *See* SOUTH EASTERN NATURALIST.

EASTMAN, CHARLES ROCHESTER [1868–].
1903. *See* ZITTEL, K. A. VON.

1907. Devonic fishes of the New York formations. (New York State Education Dept.) *Albany.*

1916–23. A Bibliography of Fishes. *See* DEAN, BASHFORD.

EATON, ELON HOWARD [1866–].
1901. Birds of western New York. *pp. 64. index.* (*Proc. Rochester Acad. Sc.*, vol. IV.)

1910–14. Birds of New York. *2 vols. 4to.* Vol. I, *pp. 501. 42 pl.* (*col.*). *23 maps* (*col., 1 fold.*). *79 figs. index.* Vol. II, *pp. 719. 64 pl.* (*col.*). *65 figs. index.* *Albany.*

A comprehensive report (N.Y. State Museum) on the birds of the state with descriptions of each species is followed by an account of its distribution, haunts and habits, with in many cases photographs of its nest and eggs, etc. The 106 fine colored plates, illustrating every species, are by Louis Agassiz Fuertes. The present copy was a gift from the N.Y. State Library.

EATON, JOHN MATTHEWS.
1858. A treatise on the art of breeding and managing tame, domesticated, and fancy pigeons. *8vo. pp. 200. front.* (*col.*). *17 pl.* (*col.*). *T. of c.* *London.*

The first part of this work is really John Moore's (1735) 'Columbarium', with footnotes by the present author. The rest of the volume is mainly devoted to similar extracts from various other writers. *See* MOORE, JOHN.

EATON, WALTER PRICHARD [1878–].
[**1920**]. In Berkshire fields. *8vo. pp. xiii+312. front.* (*col.*). *20 pl.* (*col.*). *69 figs.* (*many col.*). *T. of c.* *New York.*

Records of wanderings of a naturalist in the Berkshire Hills, many chapters of which had already appeared in *Harper's Magazine.*

EBERT, JOHANN JAKOB.
1776–8. Naturlehre fuer die Jugend. *3 vols. 8vo.* *Leipzig.*

A rare treatise, quoted by Agassiz, ii. 315, but not by Pritzel. Not listed in the *Cat. Br. Mus.* (*Nat. Hist.*).

ÉCHANGE. (**Revue Linnéenne.**) **1885**–*date.* *Lyons.*

ÉCHO DU MONDE SAVANT. 1834–45. *Paris.* *See* RICHMOND, C. W.

ECKARDT, WILHELM RICHARD [1879–].
1920. Meeresvögel. *8vo. pp. 70. 32 text-figs. index.* *Leipzig.*

A well-written brochure on water-birds, with special reference to the anatomy and physiology of the subject.

n.d. Praktischer Vogelschutz. *8vo. pp. 90. 52 illust. in text. T. of c.* *Leipzig.*

ECKER, ALEXANDER [1816–87].
1880. Lorenz Oken; eine biographische Skizze; Gedächtnissrede zu dessen hundertjähriger Geburtstagsfeier. *8vo. pp. 8+220. portr. Stuttgart.*

ECKSTORM, *Mrs.* FANNIE HARDY [1865–].
[**1901**]. The bird book. *8vo. pp. xii+281. 56 figs. 1 map. T. of c. append. index.* *Boston.*

A popular school book.

?1904. The Woodpeckers.

ECONOMIC NATURALIST. 1887. *Huddersfield.*

EDER, ROBERT.
1908. Die Vögel Niederösterreichs. Mödling bei Wien. (Wanting.)

EDINBURGH FIELD NATURALISTS' AND MICROSCOPICAL SOCIETY.
1881–*date.* Transactions.

EDINBURGH JOURNAL OF NATURAL AND GEOGRAPHICAL SCIENCE. 1829–31.

EDINBURGH JOURNAL OF NATURAL HISTORY AND OF THE PHYSICAL SCIENCES. 1835–40.

EDINBURGH NEW PHILOSOPHICAL JOURNAL.
1826–54.

1855–64. New series.

EDINBURGH PHILOSOPHICAL JOURNAL (continued as Edin. New Philo. Journ.). **1819–26.**

EDWARD, *of Norwich, 2nd duke of York* [1373?–1415].
1904. The master of game, by Edward, second duke of York. The oldest English book on hunting; ed. by Wm. A. and F. Baillie-Grohman, with a foreword by Theodore Roosevelt. *folio. pp. liii+(1)+286. front.* (*col.*). *51 pl. T. of c. bibliogr. glossary. index.* *London.*

Not only the oldest but the most important work on the chase in the English language that has come down to us from the Middle Ages. Written between the years 1406–13 the greater part of the book is a careful translation from Count Gaston de Foix's *Livre de Chasse*, the most famous hunting book of all times. Of the 36 chapters in the *Master of Game* only five are original (printed in italics) but these, as well as the numerous interpolations made by the translator, are of the greatest importance to the student of Venery, as showing the changes that had been introduced into Britain in the three hundred and two score years since the conquest, when the French language and French hunting customs became established on English soil. Only 600 copies with these fine plates were printed, of which the present copy is No. 39.

EDWARDS, ALPHONSE MILNE. *See* MILNE-EDWARDS, ALPHONSE.

EDWARDS, C. E.

1893. Camp-Fires of a Naturalist, etc. *8vo.* (Wanting.) *London.*

EDWARDS, GEORGE [1694–1773].

1743. A natural history of birds. Most of which have not been figur'd or describ'd, and others very little known from obscure or too brief descriptions without figures, or from figures very ill designed. Containing the figures of sixty birds and two quadrupedes, engrav'd on fifty-two copper plates, after curious original drawings from life, and exactly colour'd. With full and accurate descriptions. *folio.* *London.*

A covering title with the motto, 'Natura semper eadem, sed Artes sunt variae', which might properly apply to the arrangement of this 'vol. I' in which it appears. Following this title-page is 'A natural History of Birds', 1747, Part II, (q.v.).
The various issues, editions, and translations of George Edwards' treatises were issued so irregularly and in such confusing combinations that it is very difficult to catalogue them. The Compiler may well be criticized for the present method of collation and annotation of the numerous writings of the author, whether published in English or other languages.

1745–51. Histoire naturelle d'oiseaux peu connus. *2 vols.* *London.*

Excerpt from the French translation of *Uncommon Birds.*

1747. A natural history of birds, most of which have not been figured or described, and others very little known from obscure or too brief descriptions without figures, or from figures very ill designed: containing the figures of sixty-one birds and two quadrupedes, engrav'd on fifty-three copper plates, after curious original drawings from life, and exactly colour'd. With full and accurate descriptions. To which is added, an appendix, by way of illustration. Part II. *folio. pp. xxiii+126. 104 col. pl. (100 birds). 1 col. map. index.* Printed for the Author. Part of 'Vol. I'. *London.*

One of the irregularly issued portions of the famous Natural History.

[**1750**?] A natural history of uncommon birds, and of some other rare and undescribed animals, quadrupedes, reptiles, fishes, insects, etc. Exhibited in three hundred and sixty-two copper-plates, from designs copied immediately from nature, and curiously coloured after life. With a full and accurate description of each figure. To which is added, A brief and general idea of drawing and painting in water-colours; with instructions for etching on copper with aqua-fortis: likewise some thoughts on the passage of birds; and additions to many subjects described in this work. In seven parts. Vol. I. *London.*

The above title is bound with a number of works of George Edwards. It bears no date and there is little to indicate the 'seven parts'.

1750. A natural history of birds, the most of which have not hitherto been figured or described, and the rest, by reason of obscure, or too brief descriptions, without figures or of figures very ill design'd, are hitherto but little known. This part exhibits the representations of fifty-nine birds, engraven on fifty-two copper plates, and coloured in their natural and proper colours, after curious original paintings, designed from the life: with a full and accurate description of each bird. Part III. *folio. pp. 1.* *London.*

The cover title of 'Vol. II' in the E.S.W. Library of Ornithology.

1751. A natural history of birds. The most of which have not hitherto been either figured or described, and the rest, by reason of obscure, or too brief descriptions without figures, or of figures very ill designed, are hitherto but little known. Containing the representations of thirty-nine birds, engraven on thirty-seven copper-plates after curious original drawings from life; together with a full and accurate description of each. To which are added by way of appendix, sixteen copper-plates, representing the figures of many curious and undescribed animals, such as quadrupedes (both land and amphibious), serpents, fishes and insects: the whole containing fifty-three copper-plates, which is the full number given in each of the foregoing parts of this work. Every bird, beast, etc. is colour'd from the original painting, according to nature. Part IV and last. *folio. pp. iv+248. 105 col. pl. (89 birds).* Printed for the Author.
Appended: A Catalogue of the Names of the Birds, Beasts, etc., described in the third and fourth part of this work; in Latin and English. *London.*

This is probably a portion of the second edition published by Robson, although there is little to indicate that probability. The two titles are bound together as vol. II of Edwards' works in the present copy.

1758. Gleanings of natural history, exhibiting figures of quadrupeds, birds, insects, plants, etc. most of which have not, till now, been either figured or described. With descriptions of seventy different subjects, designed, engraved, and coloured after nature, on fifty copper-plate prints. *folio.* *London.*

1760. Gleanings of natural history, exhibiting figures of quadrupeds, birds, fishes, insects, etc. most of which have not, till now, been either figured or described. With descriptions of one hundred different subjects, designed, engraved, and coloured after nature, on fifty copper-plate prints. Part II. *London.*

n.d. Glanures d'histoire naturelle, consistant en figures de quadrupedes, d'oiseaux, d'insectes, de plantes, etc. dont on n'avoit point encore eu, pour la plus part, de desseins, ou d'explications; avec les descriptions de soixante et dix différents sujets, dessinés gravés, et colorés d'après nature, en cinquante planches. Tome cinquieme. . . . Traduit de l'Anglois par J. Du Plessis. *folio. pp. 1+220. 100 col. pl. (78 birds).*

This is the common French-English printing of this famous work on zoology, published as vol. III in the copy in hand.

1764. Gleanings of natural history, containing figures of quadrupeds, birds, insects, plants, etc. most of which have not, till now, been either figured or described. With descriptions of eighty-five different subjects, designed, engraved, and coloured after nature, on fifty-two copper-plate prints. Part III. *folio.* *London.*

The above (dated) title-page covers and includes the following (undated) French title.

n.d. Glanures de l'histoire naturelle, consistantes en figures de quadrupedes, d'oiseaux, d'insectes,

[**EDWARDS,** G. (*contd.*)]

de plantes, etc. dont on n'avoit point eu, pour la pluspart, de desseins, ou d'explications: avec les descriptions de quatre vingt cinq sujets différents, dessinés, gravés, et colorés d'après nature, en cinquante deux planches. IIIme partie. . . . Traduite de l'Anglois par Mr. Edmond Barker. *folio. pp. 2+xxxv+vii+221–347. 100 col. pl.* (*78 birds*).

This title and the previous one constitute 'Vol. IV' of the present series of Edwards' works. At the end of this volume is a Catalogue of the Names of the Birds, Beasts, Insects, etc. figured in the third part of the *Gleanings*, etc., in English, French and Latin. The foregoing is a continuation of the *Natural History of Uncommon Birds*.

1770. Essays upon natural history and other miscellaneous subjects; to which is added a catalogue, in generical order of the birds, beasts, fishes, insects, plants, etc., contained in [his] natural history. *8vo. pp. viii+231. portr.* *London.*

The essays in this volume are mostly copied from the author's *Gleanings of Natural History*. The treatise ends with a catalogue in both English and French (on opposite pages) of the names of the animals and plants, with an index of the illustrations as well as the plate numbers, described and depicted therein. The work is rather scarce.

1771. The natural history of Carolina, Florida, and the Bahama Islands; &c. By the late Mark Catesby. Revised by Mr. Edwards. *See* CATESBY, M.

1772–81. Verzameling van uitlandsche en zeldzaame Vogelen, benevens eenige vreemde Dieren en Plantgewassen; door G[eorge] Edwards en M[ark] Catesby; in't Hoogduitsch uitgegeven door J. M. Seligmann, thans in't Nederduitsch vertaald en met aanhaalingen van andere Autheuren verrykt, door M[artin] Houttuyn. *5 vols. in 4. folio. 453* (*of 473*) *col. pl.* *Amsterdam.*

This Dutch translation of Huth's German edition includes, like it, Edwards' *Natural History of Uncommon Birds* and his *Gleanings of Natural History* as well as Catesby's *Natural History of Carolina*, etc. Huth entitled his work *Sammlung verschiedenen ausländischer und seltener Vögel*, with new plates, some of them original. Altogether this rare version, excellently executed, is valuable for text and plates. Vols. IV and V in the present copy are from the library of John Lewis Childs.

1776. A catalogue of the birds, beasts, fishes, insects, plants, etc. contained in Edwards's Natural history, in seven volumes, with their Latin names by Sir C. Linnaeus. *See* LINNAEUS, CAROLUS.

1776. [A reprint of the papers communicated to the Royal Society.] *See* ROBSON, J. Some memoirs of the life and works of George Edwards.

1805? A natural history of birds. *2 vols.* *London.*

A late reprint from the author's original treatise.

1805–6. Gleanings of natural history. *2 vols.* *London.*

EDWARDS, GEORGE, *of Market-Lavington*.

[**1814**]. A discourse on the emigration of British birds. *8vo. pp. xv+64.* *London.*

?1814. *See* LEGG, JOHN.

EDWARDS, HENRI MILNE. *See* MILNE EDWARDS, HENRI.

EGEDE, HANS [1686–1758].

1745. A Description of Greenland. *1 vol. 8vo.* Translated from the Danish edition of 1729. *London.*

EGGS. The official organ of the Scientific Poultry Breeders Association [weekly]. Vol. 4, no. 4. *4to.* (Dated 1921.) [*Rudgwick.*]

EGYPT. Government Zoological Gardens. *See* GIZEH.

******. Ministry of Finance.**

1923. Catalogue of Publications in Store. *Cairo.*

******. Zoological service.**

1913–24. Report for 1912–23. *3 vols. pl. 8vo and 4to.* *Cairo.*

******.** *See* ZOOLOGICAL SOCIETY OF EGYPT.

EHA. (*Pseudonym.*)

1894. A Naturalist on the Prowl; or in the Jungle. *8vo. illust.* *London.*

A very interesting and popular account of wild life in India written by a newspaper correspondent for a Calcutta journal. *See* AITKEN, E. H.

EHRENBAUM, E. *See* FAUNA ARCTICA, 1900–28. Fish of the Arctic regions.

EHRENBERG, CHRISTIAN GOTTFRIED [1795–1876].

1828–45. Symbolae Physicae, seu Icones et descriptiones Corporum Naturalium novorum, etc. Pars Zoologica. *4 vols. folio. col. illust.* *Berlin.*

This important treatise with its contributions to vertebrate zoology contains chapters on mammals and birds by Ehrenberg and, in a later supplement (1899), additional matter on the same subjects by P. Matschie; reptilia by G. Tornier; pisces by F. Hilgendorf. The E.S.W. Library has a separately bound volume, dated 1828–33, with the Aves, by C. G. Ehrenberg, 10 col. pl. and descriptive letterpress. A part of this volume was not published until 1833.

1899. Icones adhuc ineditae, [etc.]; publico usui obtulerunt O. Carlgren, F. Hilgendorf, E. V. Martens, P. Matschie, G. Tarnier, W. Weltner. Zoologica. *pp. [4]+65+24 pl.* *Berolini.*

EHRENKREUTZ, VON (*Baron*).

1864. Das Ganze der Angelfischerei, etc. 8th ed.

EHRMANN, P. **1929.** *See* BROHMER, P.

EICHWALD, CARL EDUARD VON [1795–1876].

1841. Fauna Caspio-Caucasia. *pp. iv+233. 40 col. pl.* *Petropoli.*

EIGENMANN, CARL H.

1893. South American Fishes. *San Francisco.*

A compendium describing most of the common and some of the rarer species.

1903–10. *See* PRINCETON UNIVERSITY.

1909. The fresh water fishes of Patagonia and an examination of the Atchiplata-Archhelenis theory. *folio. pp. 150. illust. pl.* (Princeton Univ. Expeditions to Patagonia, 1896–9. Reports, 1909, vol. 3, pt. 3.) *Princeton.*

1912. The Freshwater Fishes of British Guiana, including a study of the Ecological grouping of species, and the relation of the Fauna of the plateau to that of the lowlands. *4to. pp. xx+578. 71 pl.* (*1 col.*). *33 maps. text illust.* Separate of the Carnegie Institute Museum Memoirs, vol. 5. *Pittsburgh.*

EIMBECK.
1829. Beschreibung eines bisher nicht bekannten sehr auffallend gebildeten Deutschen Wasservogels nebst einer verhältnissmässigen Abbildung in halber Lebensgrösse. *4to. pp. 4+4. pl.* *Braunschweig.*
A contribution to the study of the genus *Anas*.

EIMER, Gustav Heinrich Theodor [1843–98].
1888–1901. Die Entstehung der Arten auf Grund von Vererben erworbener Eigenschaften nach den Gesetzen organischen Wachsens. *3 vols. 8vo. illust. pl.* *Leipzig.*
This philosophic treatise was issued in three parts, the second volume in 1897.

EINZELDARSTELLUNGEN AUS DEM GEBIET DER ANGEWANDTEN NATURWISSENSCHAFTEN. 1920–*date*. *Munich.*

EIPPER, Paul.
1929. Animals looking at you. *8vo. pp. 10+163. pl.* *New York.*

EKSTRÖM, C. Ulrich [1781–1859].
1835. Die Fische in den Scheeren von Mörkö (Schweden). *pp. 290. 6 pl.* *Berlin.*
A rare and early contribution to the study of Swedish fishes, translated from the Swedish with notes by F. C. H. Creplin. Not listed in the *Cat. Br. Mus. (Nat. Hist.)*.

1893–5. *See* fries, b.

ELAND, G.
1923. In Bucks; a 2nd and enl. ed. of Old works and past days in rural Buckinghamshire. *8vo. pp. viii+129. front. (map fold.). 12 pl. 3 figs. (plans). T. of c. index.* *Aylesbury.*

ELBERFELD. Naturwissenschaftlicher Verein in Elberfeld (und Barmen).
1847–*date*. Jahresberichte. [The words 'und Barmen' were dropped between 1867–8.]

******. Naturwissenschaftliche Gesellschaft.**
1878–80. Jahresberichte 1–2 (all pub.).

ELDON, Charles H.
1919. The passenger pigeon in Pennsylvania. *See* french, j. c.

ÉLEVEUR. (*Paris.*) **1885–*date*.**

ELGEE, Frank.
1912. The moorlands of north-eastern Yorkshire. *8vo. pp. xvi+360. front. 39 pl. (1 col.). 14 figs. (9 maps). 3 maps (col. fold.). T. of c. append. index.* *London.*
The principal references to the fauna will be found in chapter XIV.

EL HORNERO. *See* hornero, el.

ELIOT, Willard Ayres.
1923. Birds of the Pacific Coast. Including a brief account of the distribution of 118 birds that are more or less common to the Pacific Coast States, etc. *8vo. pp. xvii+211. front. 56 col. pl. T. of c. index.* *New York and London.*
A popular but well-written account of bird life bordering the North American Pacific Coast region. An appendix gives a systematic list (including the common names) of birds found in British Columbia, Washington, Oregon and California.

ELLENBERGER, Wilhelm [1848–1925] and **BAUM,** Hermann
1926. Handbuch der vergleichenden Anatomie der Haustiere. *16 aufl.* *Berlin.*

ELLIOT, Daniel Giraud [1835–1915]
[1864]–65. A monograph of the *Tetraoninae*: or, family of the grouse. *double elephant folio. pp. (20)+(52). 27 pl. (col., 2 eggs). T. of c. bibliogr.* *New York.*
The first of a series of magnificent monographs, for the preparation of which this author is famous. The present work was published in five parts; pts. I–II, 1864; III–V, 1865 (according to Coues). Twenty-five species are treated in this monograph, all the Tetraoninae known at the time, the illustrations by the author and J. Wolf. Two colored plates of eggs (60 figs.) are by Wm. S. Morgan. The original cover to part I bearing the date 1864 is bound in at the end of the volume.

[1866]–9. The new and heretofore unfigured species of the birds of North America. *2 vols. folio.* Vol. I, *pp. (32)+(58). 29 pl. (col.). 18 figs. T. of c.* Vol. II, *pp. (4)+(88). 43 pl. (col.). 5 figs. T. of c.* *New York.*
Published in 15 parts; pts. I and II, 1866; III–VIII, 1867; IX–XII, 1868; XIII–XV, 1869, according to Coues and *Ibis*. The introduction, which appeared in pts. XIV and XV, treats of 32 species not given in the general text. The genus Exanthemops is a new one. The colored illustrations are by the author, J. Wolf, and Edw. Sheppard.

[1870]–2. A monograph of the *Phasianidæ* or family of the pheasants. *2 vols. el. folio.* Vol. I, *pp. (4)+xxx+(6)+(78). 33 pl. (31 col.). T. of c.* Vol. II, *pp. (6)+(108). 48 pl. (col.). T. of c.* *New York.*
Issued in six parts, the original covers of which are bound in at the end of vol. II, the first bearing the date of June 1870, and the last that of March 1872, which, however, was not issued until October. Considered by many to be Elliot's finest monograph. The hand-colored plates by J. Wolf and J. Smit are excellent. The original charcoal drawings by the former artist, from which the 79 colored lithographs illustrating this work were copied, are now in the Blacker Library and are described under 'Original drawings by Joseph Wolf' and include 16 others also, which, although originally intended for this work, were never published.

1873. A monograph of the Paradiseidae, or birds of paradise. *folio. pp. 32+[90]. 37 pl.* Bibliography, pp. 9–15 in pref. *London.*

1877–82. A monograph of the bucerotidæ, or family of the hornbills. *folio. pp. xxxii+(2)+146. 60 pl. (57 col.). 7 figs.* *London.*
This fine monograph was issued in ten parts, the dates of publication being slightly confused. In the present copy, in which the covers to the parts are bound in at the end of the volume, pt. I bears date 1877, and pt. X, that of 1882, the introductory matter apparently appearing in this part, as well as the two plain plates of generic characters, and one of the head of Pholidophalus casuarinus, by J. Smit. The remaining 57 fine colored plates are by J. G. Keulemans.

1878. On the fruit-pigeons of the genus Ptilopus. *8vo. pp. 500–75. 2 pl. (col.). 6 figs. bibliogr.* [*London.*]
Extracted from the *Proc. Zool. Soc. Lond.*, May 7, 1878, without alteration of pagination. In the Key to these pigeons which inhabit the Pacific Islands, 71 species are recognized and fully described. They are divided into two great groups, characterized by having the breast feathers bifurcated or not bifurcated. The two colored illustrations are by J. Smit.

1878. A classification and synopsis of the Trochilidae. *folio. pp. xii+277. 127 figs. T. of c. append. 4 indexes.* *Washington.*
A beautiful monograph on the Humming-birds, with keys to the genera and species. The various signatures are dated April 1878 to March 1879, but the entire work was published in April 1879, according to a statement on page xiv of the table of contents of Vol. XXIII of the 'Smithsonian Contributions', of which the present paper forms article V.

[**ELLIOT**, D. G. (*contd.*)]

1883. A monograph of the felidæ or family of the cats. *folio. pp. 16+108. 43 col. pl.* Each plate has from 1 to 5 separately paged descriptive texts. *London.*

In the Blacker Library are 60 original charcoal sketches by Joseph Smit, drawn to illustrate this fine monograph—among the best illustrated of the numerous treatises by Elliot. Of these, 43 were reproduced in the present work; the remaining 17 were not so utilized.

1885. *See* KINGSLEY, J. S., *ed.*, 1885.

[**1888**]. The Riverside natural history. *See* KINGSLEY, J. S.

1893–5. A monograph of the Psittidae, or family of ant-thrushes. *folio. pp. 23. 1 tab. 51 col. pl. London.*

The second edition (the first published in 1867 with 31 plates only) of this charming atlas, with descriptive text.

1895. North American shore birds, a history of the snipes, sandpipers, plovers and their allies . . . of North America. *4to. pp. xvi+17–268. front. 72 pl. 1 diagr. 2 figs. T. of c. glossary. append. index. New York.*

This remarkably well-prepared monograph is a popular but scientific account, the appendix containing keys to the families. The present copy is number 42, large paper edition, of which only 100 copies were issued, autographed by the author. It is also a presentation copy.

1897. The gallinaceous game birds of North America including the partridges, etc. *8vo. pp. xviii+220. front. 45 pl. 1 color chart. T. of c. append. index. London.*

Short accounts of 46 species, with illustrations by Edwin Sheppard. The volume forms a companion to the author's *North American Shore Birds*, 1895. A second printing appeared in New York a month after this first edition.

1898. The wild fowl of the United States and British possessions; or, The swan, geese, ducks and mergansers of North America. *8vo. pp. xxii+316. front. (portr.). 63 pl. T. of c. append. index. New York.*

A companion volume to the author's *North American Shore Birds*, 1895, and *The Gallinaceous Game Birds of North America*, 1897, being a popular account of 63 species. The illustrations are by Edwin Sheppard, D. G. Elliot, and J. Wolf.

1901. A synopsis of the mammals of North America and the adjacent seas. *8vo. pp. 14+471. 49 pl.* (Publication of the Field Columbian museum. Zoological series, vol. II.) *Chicago.*

A useful systematic and technical treatment of the subject in the author's best style.

1902. *See* ROOSEVELT, THEODORE, 1902.

1903. List of mammals from . . . North California and Oregon. *Chicago.*

1903. New Mammals from California, etc. *Chicago.*

Author's reprint.

1904. The Land and Sea mammals of Middle America and the West Indies. *8vo. pp. 21+850. 68 pl. text-figs.* (Field Columbian Museum. Zoological series.) *Chicago.*

An excellent treatise and work of reference. An appendix to the 'Synopsis'.

1904. Catalogue of Mammals from South California. *12 pl. Chicago.*

Author's separate, from Publications of the Field Museum. Zoological Series.

1905. A check list of mammals of the North American continent, the West Indies and the neighboring seas. *8vo. pp. 4+761. pl.* (Publications of the Field Museum. Zoological series.) *Chicago.*

A supplement was published in New York, 1917.

1907. A catalogue of the collection of mammals in the Field Columbian Museum. *Chicago.*

1913. A review of the Primates. *3 vols. 8vo.* Monograph Series, Amer. Mus. Nat. Hist. Vol. 1, *pp. cxxvi+317+xxxviii. 32 pl. (10 col.).* Vol. 2, *pp. xviii+382+xxvi. 39 pl. (8 col.).* Vol. 3, *pp. xiv+262+clxviii. 39 pl. (8 col.). New York.*

ELLIOT, GEORGE FRANCIS SCOTT.

1896. A Naturalist in Mid-Africa. *8vo. pp. xvi+413. 14 pl. 3 maps. London.*

1901. Fauna, Flora, and Geology of the Clyde area. *8vo. pp. 10+567. 1 map. Glasgow.*

Issued as a British Association Hand-Book for the Glasgow meeting, 1901. The mammals are described by H. B. Watt, the Birds by J. Patterson, the Reptilia and Amphibia by A. Brown, and the Marine and Freshwater Fishes by T. Scott and A. Brown.

ELLIOT, H. S. R. and **THACKER**, A. G.

1909. Beasts and men. *See* HAGENBECK, C.

ELLIOT, WALTER [1803–87].

1840. A catalogue of the species of Mammalia found in the southern Mahratta country; with their synonymes in the native languages in use there. *8vo. pp. 2+43.* (*Madras Journal of Literature and Science*, vol. 10, 1839. Interleaved with MS. notes. Presentation copy from author.) *Madras.*

ELLIOTT, HENRY WOOD [1846–?1929].

1886. Our arctic province; Alaska and the seal islands. *8vo. pp. xv+473. front. 48 pl. 5 maps (1 fold.). 43 figs. T. of c. index. New York.*

The principal references to the birds will be found on pp. 208–24, relating more especially to the birds of the Pribylov Islands. Published also in London under the title *An Arctic Province*, 1886.

ELLIOTT, WILLIAM [1788–1863].

1867. Carolina sports by land and water; including devil-fishing, wild-cat, deer and bear hunting, etc. *8vo. pp. vi+292. T. of c. New York and London.*

Another record of the wanton destruction of defenceless animals by a 'sportsman'. It mostly refers to the murder of mammals, but there is a short chapter at the end of the volume 'of the birds which are the objects of sport'.

ELLIOTT SOCIETY OF NATURAL HISTORY. *Charleston, S.C.*

1857–60. Journal (all pub.).

1853–90. Proceedings (all pub.).

ELLIS, HENRY [1721–1806].

1748. A Voyage to Hudson's Bay . . . in . . . 1746 and 1747 . . . with . . . a short Natural History of the Country. *1 vol. 8vo. pp. xxviii+336. 9 pl. 1 map. London.*

There is a German translation and several other editions of this rather rare voyage.

ELMS, EDWARD FURNESS MARSON [nat. 1878].

1906. A pocket-book of British birds. *8vo. pp. vii+150. index. London.*

[**1921**]. Our resident birds and how to know them. *8vo. pp. 126. front. 14 pl. T. of c. index. London.*

1923. Our migrant birds and how to know them. *12mo. pp. 126. 8 pl. T. of c. index. London.*

ELROD, MORTON JOHN [1863–].
1902. A biological reconnaissance in the vicinity of Flathead Lake [Montana]. (Montana Univ. Bull. Biolog. Series, No. 3.) *8vo. pp. 2+92. front. 29 pl. 2 maps. 3 figs. bibliogr. index.* *Missoula, Mont.*

ELTON, CHARLES.
1927. Animal Ecology. With an Introduction by Julian S. Huxley. *pp. 20+207. 8 pl. 13 figs. in text. T. of c. index.*
A modern discussion of the intimate social life and environment of animals.

ELWES, A. J. and **WOOD,** THEODORE.
1905. The zoo, past and present. *8vo. pp. xii+147. front. 103 figs. T. of c.* *London.*

ELWES, A. T.
[**1898**]. *See* SHARPE, R. B. Wonders of the bird world.

EMBODY, GEORGE CHARLES [1876–].
1901. Birds of Madison County, New York. (Colgate University theses.) *pp. 36+30 ll. front. pl.* *Hamilton, N.Y.*
This list covers 191 species with a hypothetical list of a further 16 species. Presentation copy from author.

EMDEN. Naturforschende Gesellschaft.
1815–*date.* Jahresbericht.

1855–99. Kleine Schriften (all pub.).

EMERSON, PETER HENRY [1856–].
1895. Birds, beasts and fishes of the Norfolk broadland. 2nd ed. *8vo. pp. 16+396. illust. pl.* *London.*

EMMANUEL, S. M.
1925. My wonder-world; a nature lover's paradise. *8vo. pp. 14+266. 10 pl.* *Cambridge.*

EMMONS, EBENEZER [1799–1863].
1833. A Catalogue of the Animals and Plants of Massachusetts. (Wanting.)

****, **PEABODY,** W. B. O., and **others.**
1838. Reports on the Zoological Survey of Massachusetts. *See* MASSACHUSETTS. *Boston.*

EMORY, WILLIAM HELMSLEY [1811–?82].
1859. Report on the U.S. and Mexican Boundary Survey. Zoology. Mammals by Baird, *27 pl.* Birds by Baird, *25 col. pl.*, etc. *4to. See also* UNITED STATES. *Washington.*

1859. *See* BAIRD, S. F., 1859.

EMU, THE. A Quarterly Magazine to popularize the Study and Protection of Native Birds. Official Organ of the Australasian Ornithologists' Union, 1900–30. Edited by A. J. Campbell and H. Kendall. Melbourne, Victoria; other places. Most volumes contain a list of Officers and Members of the Australasian Ornithologists' Union. Numerous colored plates and black and white illustrations. Volumes have an index and in part a table of contents. *8vo.* *Melbourne.*
Contributions on subjects connected with every branch of Australasian ornithology have been made to this important journal, and it is still vigorously and effectively 'in progress'. Descriptions of new species, often illustrated by colored plates, are regularly published by members, domestic and foreign, of the R.A.O.U. of which the *Emu* is the accredited organ. The names of most ornithologists interested in Australian and New Zealand bird protection and culture (who lived and worked during the past three decades) will be found at the head of original articles. There are also valuable reviews of papers from other ornithological journals touching antipodean avifauna.

(THE) ENCYCLOPEDIA OF SPORT.
1898. Ed. by the Earl of Suffolk and Berkshire, Hedley Peek and F. G. Aflalo. *2 vols. 4to.* Vol. I, *pp. ix+632. front. 19 pl. text-figs. T. of c.* Vol. II, *pp. vii+655. front. 19 pl. text-figs. T. of c. 2 indexes.* *New York.*
References to the natural history of game and shore birds occur throughout both volumes, accompanied by 18 plates by A. Thorburn and many text-figures by various other artists.

ENCYCLOPÉDIE MÉTHODIQUE.
1782–1832. *196 vols. 4to. text and pl.* *Paris and Liège.*
The Blacker Library has all the natural history volumes of this immense dictionary and cyclopedia, to which the chief French naturalists of the day contributed sections. The majority of the contributions are from the pen of L. J. M. Daubenton, including the quadrupeds, whales, birds, and fishes. A. G. Desmarest wrote the caption *Mammalogie*, while the Abbé Bonnaterre furnished the chapters on herpetology, ophiology, ichthyology, etc. Tables incorporating the three natural kingdoms are also given.

ENCYCLOPÉDIE ORNITHOLOGIQUE.
1925–8. *3 vols. 4to. illust. pl. diagr.* *Paris.*
CONTENTS. Vol. 1. Ornithologie du Sahara Septentrional, par H. Heim de Balsac. 2. L'autruche, par Henri Poisson. 3. Les corvidés d'Europe par Paul Madon.

ENGELL, MAGNUS CORNELIUS [1869–].
1899. Om Elefantens Udbredelse i Afrika. *8vo. pp. 4+162. map.* (*Zoogeografiske Studier*, 1.) *Kjøbenhavn.*

ENGELMANN, F.
1928. Die Raubvögel Europas. Naturgesch., Kulturgesch. u. Falknerei. *10 parts. 4to. 36 pl. 505 text-figs.* *Neudamm.*
One of the best works on European birds of prey. It is profusely illustrated.

ENGELMANN, WILHELM [1808–78].
1846. Bibliotheca Historico-Naturalis. Verzeichniss der Bücher über Naturgeschichte welche . . . in den Jahren 1700–1846 erschienen sind, etc. (Index Librorum Historiam Naturalem, etc.). Bd. I. *8vo. pp. viii+786.* *Leipzig.*

Continued as:

1861. Bibliotheca Historico-Naturalis . . . Supplement-Band, enthaltend die in den periodischen Werken aufgenommenen und die vom Jahre 1846–1860 erschienenen Schriften. (Bibliotheca Zoologica . . . bearbeitet von J. V. Carus . . . und W. Engelmann.) 2 Bd. *8vo.* *Leipzig.*

Continued as:

1886. Bibliotheca Zoologica II. Verzeichniss der Schriften über Zoologie welche . . . vom Jahre 1861–1880 . . . erschienen sind . . . Bearbeitet von . . . O. Taschenberg. Bd. I. *8vo.* *Leipzig.*
One of the most important bibliographic serials and works of reference in any language. The Compiler is greatly indebted to its use in preparing the present volume. Complete files are in the Blacker Library.

ENGLISH, DOUGLAS, *ed.* *See* WILD LIFE, 1913–18.

ENRIQUEZ, COLIN METCALFE DALLAS [1884–].
1927. Kinabalu, the haunted mountain of Borneo; an account of its ascent, its people, flora and fauna. *illust. map.* *London.*

EPPING FOREST AND COUNTY OF ESSEX NATURALISTS' FIELD CLUB. *See* ESSEX FIELD CLUB.

ERCOLANI, GIOVANNI BATTISTA [1819–83].

1881. Accademia delle scienze dell' Istituto di Bologna dalla sua origine a tutto il 1880. *8vo. pp. 2+278.* *Bologna.*

EREBUS AND TERROR.

1844–75. The Zoology of the Voyage of H.M.S. Erebus and Terror . . . during 1839–43, etc. *2 vols. 4to. illust.* *London.*

These well-known publications, based on discoveries made by the expedition in search of Sir John Franklin, affected both Arctic and Antarctic flora and fauna. The latter were reported upon chiefly by Sir J. Richardson, J. E. Gray, and Sir J. D. Hooker. *See also* RICHARDSON, J.

ERGEBNISSE DER ANATOMIE UND ENTWICKLUNGSGESCHICHTE. *See* ZEITSCHRIFT FÜR DIE GESAMTE ANATOMIE.

ERGEBNISSE DER HAMBURGER MAGALHAENSISCHEN SAMMELREISE.

1896–1908? *Hamburg.*

ERGEBNISSE UND FORTSCHRIFTE DER ZOOLOGIE.

1909–26. Spengel und Becher. Vols. I–VI. *Jena.*

ERHARD, H. **1921.** *See* BURCKHARDT, RUDOLPH.

ERICSON, RHEINHOLD. **1920.** *See* GYLLING, OLOF.

ERLANGER, CARLO, *Freiherr* VON [1872–].

1901. Utazás Tuniszon at; forditotta, bevezetéssel és jegyzetekkel ellátta Kormos Tivadar. *pp. 105+[2]. portr.* *Budapest.*

1908. Katalog der Collection von Erlanger in Nieder-Ingelheim. *8vo. pp. 8+528. portr. Berlin.*

The collection referred to was largely African, comprising nearly thirteen thousand bird skins and over eleven hundred clutches of birds' eggs, the property of the late Carl von Erlanger.

ERMAN, ADOLPH GEORG [1806–77].

1833–48. Reise um die Erde durch Nord-Asien in 1828–30. *5 vols. illust and atlas. 8vo and folio.* *Berlin.*

The Atlas contains the natural history portion of the voyage records —von Thieren und Pflanzen, 17 pl. (2 col.). It is a classic travelogue with an account of many species new to science.

ERXLEBEN, JOHANN CHRISTIAN POLYCARP [1744–77].

1773. Anfangsgründe der Naturgeschichte. 2nd ed. *6 pl.* *Göttingen.*

1777. Systema Regni Animalis per classes, ordines, genera, species, etc. Classis I. Mammalia. *8vo. pp. 48+636+64.* (All pub.) *Lipsiae.*

One of the important contributions to the study and controversial literature of eighteenth-century classification.

ESCHRICHT, DANIEL FREDERIK [1798–1863].

1844–[8]. Undersögelser over Hvaldyrene. *6 vols in 1. 4to. illust. pl.* (K. Dansk Videnskab. Selskap.) *Kjøbenhavn.*

1861. Om nordhvalen (Balaena mysticetus L.) navnlig med hensyn til dens udbredning i fortiden og nutiden og til dens ydre og indre særkjender. *Kjøbenhavn.*

1869. Ni Tavler til oplysning af Hvaldyrenes Bygning, med tilhørende Forklaring. *4to. pp. 14. pl.* (K. Dansk Videnskab. Selskap.) *Kjøbenhavn.*

ESCHSCHOLTZ, JOHANN FRIEDRICH VON [1793–1831].

1829–33. Zoologischer Atlas enthaltend Abbildungen . . . neuer Thierarten, während . . . von Kotzebue Zweiter Reise um die Welt . . . in . . . 1823–6. *5 pts. (in 1 vol.). folio. illust. col. pl.* *Berlin.*

This is the record of an important scientific journey around the world in which the fauna are systematically described and depicted.

ESSEX COUNTY ORNITHOLOGICAL CLUB OF MASSACHUSETTS.

1919–30. Bulletin. *8vo.* List of members in each vol. *Salem.*

ESSEX FIELD CLUB. *London.*

1884–*date*. Special Memoirs.

1880–7. Journal of Proceedings. (Continued in Essex Naturalist.)

1895–*date*. Museum Handbooks.

1880–6. Transactions.

This foundation is one of the most important of the local English natural history societies, issuing the *Essex Naturalist* and other publications since 1880.

ESSEX INSTITUTE. *Salem, Mass.*

1898/9–*date*. Annual Report.

1869–98. Bulletin.

1864–70. Communications.

1848–68. Proceedings.

1831–65. Transactions.

ESSEX NATURALIST. (*See also* ESSEX FIELD Club.) **1887–*date*.** *Buckhurst Hill.*

ESTERNO, HENRI PHILIPPE FERDINAND, *comte d'* [1805–83].

1864. Du vol des oiseaux; indication des sept lois du vol ramé et des huit lois du vol à voile. *pp. 61+[2]. illust. pl.* *Paris.*

A rare and important essay on the laws governing the flight of birds.

[**ESTIENNE,** STEPHANUS CHARLES [1504–64].]

1547. De Latinis et Graecis nominibus . . . piscium & auium Liber, etc. 3a. aeditio. *8vo.* Issued anonymously. *Lutetiae.*

A very rare tractate on the names of the ancient Greek and Latin names of birds, fishes, and other animals. From the Osler Library, this edition not listed in the *Cat. Br. Mus.* (*Nat. Hist.*).

ETOC, GABRIEL.

1910. Les oiseaux de France, leurs œufs et leurs nids. Avec Préface par M. A. Ménégaux. *4to. pp. 174. index.* *Paris.*

A brief descriptive catalogue of the birds of France, with an account of their distribution, their nests and eggs.

EUDES-DESLONGCHAMPS, EUGÈNE [1830–89].

[**1880**]. Catalogue descriptif des Trochilidés ou oiseaux-mouches aujourd'hui connus, revu d'après les exemplaires du Musée de Caën. *8vo. pp. 2+489. 5 double-page pl. index.* 1st part (all pub.). *Caën.*

A projected monograph on Humming-birds based on the collection in the Caën Museum. 256 species are described in a concise, systematic fashion.

EVANS, Arthur Humble and **WILSON,** S. B.
1890–99. Aves Hawaiienses: the birds of the Sandwich Islands. *See* WILSON, S. B.

1895–1905. *See* HARMER, S. F.

**** and **BUCKLEY,** T. E.
1899. A vertebrate fauna of the Shetland Islands. *4to. pp. xxix+248. 13 pl. 2 figs. 1 map (col. fold.). T. of c. bibliogr. index. Edinburgh.*
The portion relating to the birds (220 species) is described under Aves, pp. 69–215.

1900. Birds. *8vo. pp. 16+635. map. 144 figs. in text. T. of c. index. (Cambridge Natural History,* vol. IX.) *London.*
Really a second edition of this very valuable and well-illustrated work of reference to the birds of the world. The first imprint was made in 1899 which, with the matter on p. [viii], constitutes this printing. The description of each avian group is preceded by a short account of its structure and habits. Probably not in all ornithological literature is so much information given in so few pages.

1903. *See* TURNER, W.

1909. The Cambridge natural history, vol. IX. Birds. (See the *Cambridge Natural History.*)
Another printing of this valuable work of reference. Still another edition appeared in 1922.

1911. A fauna of the Tweed area. *8vo. pp. xxviii +262. 22 pl. (1 t.-p.). 1 map (col. fold.). 7 figs. T. of c. bibliogr. index. Edinburgh.*
The eleventh volume of the series 'A Vertebrate Fauna of Scotland', edited by J. A. Harvie-Brown. The portion devoted to Aves occupies pp. 29–246.

EVANS, Edward Payson [1831–1917].
1906. (The) criminal prosecution and capital punishment of animals. *8vo. pp. x+384. front. 1 fig. (vignette). T. of c. 19 append. bibliogr. index. London.*
The present volume is the result of the revision and expansion of two essays entitled 'Bugs and Beasts before the Law', and 'Modern and Mediæval Punishment', which appeared in the *Atlantic Monthly,* in August and September 1884. Amongst the curious punishments meted out to birds are the following, viz.: Swallows destroyed by anathema; Swallows proscribed by a Protestant parson; and a Cock burned at the stake for the unnatural crime of laying an egg!

EVANS, William.
1892. The Mammalian Fauna of the Edinburgh District, etc. *8vo. pp. 123. index. Edinburgh.*
Author's amended reprint from the *Proceedings of the Roy. Phys. Soc.,* vol. XI, of which only 200 copies were issued. It is a rare, valuable, systematic contribution to Scottish mammalogy, not in the *Cat. Br. Mus.* (*Nat. Hist.*).

EVANS, *Rev.* William Edward [1801–69].
1888. The songs of the birds; or, Analogies of animal and spiritual life. 3rd ed. *8vo. pp. vi+ 282. 47 figs. T. of c. London.*

EVARTS, Hal G.
1930. Back-tracking on Early Game Trails. *folio. pp. 16. illust. Phila.*
An instructive account (from the 24th May 1930 issue of the *Saturday Evening Post*) of the extinction of many of our American animals, including the Carolina Parakeet, through senseless shooting of the unfortunates.

EVERETT, Alfred Hast [–1898].
1899. A List of Birds of the Bornean Islands. Author's separate, bound. *8vo. pp. 91–212. 2 maps (1 col.).*
An important monograph superseding Vordeman's catalogue of 1886.

EVERHART MUSEUM OF NATURAL HISTORY. *See* SCRANTON, PA.

EVERMANN, Barton Warren [1853–] and **JORDAN,** David S.
1902. American food and game fishes, a popular account of all the species found in America north of the equator. *4to. pp. 50+573. illust. pl. Toronto.*
A Canadian edition of a very important ichthyologic monograph. *See also* JORDAN, D. S., 1896–1900.

**** and **RADCLIFFE,** Lewis.
1917. The fishes of the west coast of Peru and the Titicaca basin. *8vo. pp. xi+166. 14 pl.* (Smithsonian Institution. United States National Museum. Bulletin 95.)

**** and **CLARK,** H. W.
1920. Lake Maxinkuckee. *2 vols. col. pl.* (Indiana Dept. of Conservation. Publication No. 7.)

EVERSMANN, Eduard Friedrich [1794–1860].
1823. Reise von Orenburg nach Buchara von Eduard Eversmann, nebst einem Wortverzeichniss aus der afgahnischen Sprache begleitet von einem naturhistorischen Anhange und einer Vorrede von M. H. C. Lichtenstein. *4to. pp. 8+150+ 35. pl. diagr. Berlin.*

1844. Kurze Bemerkungen . . . ueber Säugethiere, etc. *8vo.* (Wanting.) *Moscou.*

1876. Addenda ad celeberrimi Pallasii zoographiam Rosso-Asiaticam. *8vo. pp. (2)+ii+32+16+19. London.*
Three reprints, edited by H. E. Dresser, of rare tracts, additions to Pallas' *Russo-Asiatic zoology,* 1835. The present copy is from the Godman Library with book-plate.

EVERYMAN'S LIBRARY.
1925. The principal navigations, voyages, traffiques and discoveries of the English nation made by sea or overland, &c. *See* HAKLUYT, R.

EXCERPTS FROM ZOOLOGICAL PERIODICALS, etc. *See* SEPARATES.

EXCHANGE, THE. A paper devoted to Oology, Taxidermy, and Ornithology. *Illust. monthly. 8vo. Mendota.*
Frank Burns notes:
Vol. I, 1889. Nos. 1–4. Apr.–July. 32 pp. (all issued).
Communications to this short-lived periodical are signed with initials, except those of W. T. Miller. The *Exchange* was, after issuing four numbers, merged with the *Oologists' Exchange.*

EXNER, Sigmund [1846–?1917].
1891. Die Physiologie der Facettirten Augen von Krebsen und Insecten. *4to. pp. 8+206. pl. Leipzig.*

EXPLORATION SCIENTIFIQUE DE L'ALGÉRIE . . . PENDANT 1840–42, etc.
1844–67. *25 vols. and atlas, 5 vols. 8vo, 4to, and folio.* (Wanting.) *Paris.*
The sections on zoology of this important governmental work were written by notable French naturalists. A. Guichenot contributed one part on reptiles and fishes, pp. 4+144, with 12 pl.; Commandant Loche, in conjunction with Jean Levaillant, a *Histoire Naturelle des Oiseaux,* 1 vol. with 13 col. pl. and another volume, with 123 pp. and 7 col. pl. on the Mammifères. This is the Victor Loche whose *Catalogue des Mammifères et des Oiseaux observés en Algerie* (1858) (q.v.), first records several new species.

EXPLORATION SCIENTIFIQUE DE LA TUNISIE.
1885–99. *19 vols. text and 3 vols. atlas. 8vo and folio.* (French Government.) (Wanting.) *Paris.*
A critical catalogue of the wild, nonpelagic mammals discovered during various expeditions, prepared by F. Lataste, pp. 15+42, 1887, no report being made of other living vertebrates.

EXPLORERS' JOURNAL.
1921–*date*. Explorers' Club. *N.Y.*

EXTERDE, Ernst.
1877. Sammlung der wichtigeren oesterreichischen Gesetze, Verordnungen und Erlässe im Jagdwesen und Vogelschutz, nebst einem Anhange, enthaltend das ungarische und das kroatische Jagdgesetz. *8vo. pp. 16+228. Wien.*

EYDOUX, Joseph Fortuné Théodore [1802–41].
See VOYAGES, FRENCH. VOYAGE AUTOUR DU MONDE . . . SUR LA FAVORITE, 1833–9.

******** and **SOULEYET,** F. L. A.
1841–52. Zoologie. *2 vols. and 101 pl. in portfolio. 8vo.* (Voyage autour du monde sur la corvette Bonite, 1836–7.) *Paris.*

EYTON, Thomas Campbell [1809–80].
1836. A history of the rarer British birds. *2 pts. 8vo. pp. vi+101. 80 woodcuts. T. of c. London.*
The present volume contains two different titles. The first was intended as a supplement to Bewick and Beilby's *History of British Birds*, 1797–1804 (q.v.). The second part (a catalogue), separately paged (and according to Coues, separately issued), is listed in the table of contents of the first part. See next item.

1836. A Catalogue of British Birds. *8vo. pp. iv+67+vi.* (Bound with his *History of the Rarer British Birds*, 1836.) *London.*

1838. A monograph on the anatidae, or duck tribe. *cap. 4to. 9 pr. pp.+183. 6 col. pl. numerous plain pl. and woodcuts in the text. T. of c. and append. London.*
A concise account of the ducks of the world with a description of species and genera in both Latin and English. Under the title *A synopsis on the Anatidae*, this work was issued in 1869, but without the plates.

1839–43. *See* ZOOLOGY OF THE VOYAGE OF H.M.S. BEAGLE, 1839–43.

1867. Osteologia avium; or, A sketch of the osteology of birds. *4to. pp. 16+229. 114 pl. bibliogr. index. Wellington, Salop.*
This work contains descriptions of the complete osteology of many species of birds and of the distinctive features in the skeletons of others. The plates are careful drawings of skeletons entire and in detail, by Erxleben. Supplements were published in 1869 and 1873–5.

1869. Supplement to Osteologia avium. *4to. 18 pl. Wellington.*

1873–5. Supplement II to Osteologia avium, *3 pts. 4to. 51 pl. London and Wellington.*

F**, W****.**
1686. De Historia Piscium Libri Quatuor, etc. *folio. London.*
Probably written by W. Fulke, the author of *Meteors*, 1670.

FABER, Frederik [1795–1828].
1822. Prodromus der isländischen Ornithologie oder Geschichte der Vögel Islands. *12mo. pp. [4]+110+[2]. fold. tab. T. of c. Kopenhagen.*
This rather rare, early, work of reference was published as the result of the author's visit to Iceland in 1819 and his life there for three summers and two winters. In his account of the avifauna both the scientific and vernacular names are given. Faber wrote a number of occasional papers on Icelandic natural history prior to this publication, which seems to be his first purely ornithological treatise.

1825–6. Ueber das Leben der Hochnordischen Vögel. *1 vol. 2 pts. 8vo. pp. 322. 4 fold. tab.* Pt. I, *pp. 1+158. 1 fold. tab.* Pt. II, *pp. xvi+161. 3 fold. tab.*
A study of birds from the Arctic and Subarctic regions.

FABER, George Louis.
1883. Fisheries of the Adriatic, etc. A report of the Austro-Hungarian Sea-fisheries, with a detailed description of the Marine Fauna of the Adriatic Gulf. *4to. pp. xxvi+292. 42 pl. London.*

FABRE, Jean Henri Casimir [1823–1915].
[1926]. Animal life in field and garden. Translated by Florence Constable Bicknell and Kate Murray. *8vo. pp. 318. front. 15 pl. 7 figs. T. of c. index. London.*
This volume contains life stories of the mammals, birds, reptiles, batrachians, and insects commonly met with in the fields of France. The portion dealing with the birds occupies pp. 91–217, and includes the life-history of 62 species, all of which, with the exception of six, occur in Great Britain as well as in France, one of these being the Cuckoo, which the author describes as laying her egg on the ground, anywhere; then taking it up in her beak and putting it in a sort of pocket at the base of her gullet to be deposited later on in some other bird's nest.

FABRETTI, Ferdinando.
1869. Polimorfismo negli Animali. *12mo.* (Wanting.) *Perugia.*

FABRICIUS, Hieronymus ab Aquapendante [1537–1619].
1621. De Formatione Ovi, et Pulli tractatus, etc. *folio. illust. Patavia.*
Most of the following titles are from the *Bibliotheca Osleriana.*

1628. De Formatione Ovi, et Pulli tractatus, etc. 2nd ed. *folio. illust. Patavia.*

1687. De formato foetu.
This title (a celebrated work on comparative embryology) is to be found in the *Opera omnia*, and is sometimes confounded with the less important *De Formatione Ovi.*

1687. Opera omnia anatomica et physiologica, etc. *folio. 61 pl. Lipsiae.*
Contains practically all the biological writings of this author.

FABRICIUS, Otto [1744–1822].
1780. Fauna Groenlandica, etc. *8vo. pp. 16+452. 1 pl. Hafniae et Lipsiae.*
An early and important contribution to the zoology of Greenland.

FAIRBANK, S. B.
1876. Popular List of birds in the Marathi Country. (*Bombay Gazetteer.*) *8vo. Bombay.*

FAIRCHILD, David Grandison [1869–] and **FAIRCHILD,** Marian.
1914. Book of monsters. (National Geographic Society.) *4to. pp. 266. illust. Washington.*
An interesting, popular account of animals, mostly large lizards.

FAIRCHILD, G. M.
1907. From my Quebec Scrap-Book. *8vo. illust. Quebec.*

FAIRMAIRE, Léon Marc Herminie [1820–].
1879–84. Les Rapaces de France. *4to. Chalons-sur-Saône.*

FALCO, unregelmaessig im Anschluss an das Werk Berajah Zoographica infinita erscheinende Zeitschrift. *8vo.* Numerous black and white and several colored illustrations: also tables.
1905–30. Each Heft is, as a rule, separately paged. This periodical is an appendix of or supplement to *Berajah eine Naturgeschichte und Naturgeographie auf Kantsche Basis.*
The first issue of *Falco* as a separate publication of the *Berajah-Falco* combination (see *Berajah*) occurred in October 1905; 'Herausgeber,

O. Kleinschmidt, Volkmaritz, bei Dederstedt, Bez. Halle a/S.' [and Leipzig].
Beginning with May 1917, as 'Beilage zu Falco' the editor printed *Ornis Germanica*, a catalogue of German birds, repeating (and somewhat altering) the names of 389 species in succeeding numbers of the journal.
Quite a large number of German ornithologists, in addition to the Editor, have contributed to this periodical, among them Tschusi von Schmidhoffen, E. Hartert, R. Thielemann, O. Eckstein, Weigold, A. V. Jordans, Count Berlepsch, *et al.*

FALCONER, WILLIAM [1744–1824].
1793. Miscellaneous tracts and collections relating to natural history, selected from the principal writers of antiquity on that subject. *4to. pp. v+203. 2 indexes.* *Cambridge.*
References to birds will be found in this book under the Calendars of Natural occurrences in Ancient Greece and Ancient Rome, pp. 3–85. Presentation copy from author.

FALLON, FELICIEN FRÉDÉRIC MARIE.
1875. Monographie des oiseaux de la Belgique; établie d'après le système d'ornithologie de M. Temminck. *8vo. pp. xiv+347. T. of c. index.* *Namur.*
A handbook for amateurs but preserving the scientific form and furnishing a satisfactory history of Belgian birds. The prefatory matter includes a tabulated analysis of birds from C. J. Temminck's *Manuel d'Ornithologie*, 1st part, 1820.

FAN MEMORIAL INSTITUTE OF BIOLOGY.
1929. Annual report. *4to. portr.* *Peiping, China.*

FARAH NĀMA-I-JAMALI. *See* ABU BAKR IBN AL-MUZHIR, etc., 1493.

FARAS-NĀMA-I-HISĀMĪ.
1823. *See* ANONYMOUS.

FARINATOR, PISTORIUS MATTHIAS.
1477. Lumen Animae. Liber moralitatum magnarum rerum naturalium, etc. Anton Sorg. *folio. 370 ll.* [Thiere u. Haustiere u. Kraüter.] Hain *10329. Proctor 1650. *Augsburg.*
Fine rubricated copy from the Osler Library. This incunable treats, among other subjects, natural history, including a description of numerous animals.

FARINI, G.
1887. Huit mois au Kalahri.

FARMER, JOHN BRETLAND [1865–].
1900. The book of nature study.

FARRAR, CHARLES DRUCE.
1920? Through a Bird-Room Window. *8vo. pp. 315. col. front. cuts in the text. T. of c.* *London.*
A series of popular and interesting chapters on birds—especially on the author's own captives. The copy in hand is a gift to the E.S.W. Library of Ornithology from the late Duchess of Wellington.

n.d. Birdroom and aviary: trials and triumphs of a Yorkshire parson. *12mo. pp. 311. front. (portr.). T. of c.* *London.*

FARREN, A. F., *Lady.*
1928. Frisky tales. *8vo. pp. xii+179. front. (col.). 16 pl. T. of c.* *London.*

FARREN, WILLIAM.
1911–13. The British bird book, etc. *See* KIRKMAN, F. B. B.

FARWELL, *Mrs.* ELLEN (born DRUMMOND).
1919. Bird observations near Chicago. *8vo. pp. 192. front. (portr.). 9 pl. T. of c.* Privately printed. *Chicago.*
Interesting observations (especially as to song) of the birds observed by the author not only near Chicago, but also at Henley-on-Thames, and other places in England. Presented to the E.S.W. Library by John V. Farwell.

FASCICULI MALAYENSES. *See* ANNANDALE and ROBINSON, 1903–7.

FASTEN, NATHAN [1887–].
1929. Origin through evolution. *8vo. pp. 14+456. illust. pl.* *New York.*

FATIO, VICTOR.
1866. Des diverses modifications dans les formes et la coloration des plumes. *4to. pp. [2]+60. 3 col. pl.* (Société de physique et d'histoire naturelle. Mémoirs, vol. 8, pt. 2.) *Genève.*
Author's excerpt, an anatomical study of feathers and the causes of their peculiar coloration. From Prof. Peters' library, a presentation from the author.

1869–1904. Faune des Vertébrés de la Suisse. *5 vols. 8vo.* Vol. I, Mammifères, 1869. Vol. II, Oiseaux, pt. 1, 1899. Vol. III, Reptiles et des Batraciens, 1872. Vol. IV, Poissons, pt. 1. Vol. V, Poissons, pt. 2, 1882–90. *Geneva.*
The whole range of Swiss vertebrate zoology is treated in these very important systematic serials, issued at irregular dates. The volumes were also issued separately.

****, **STUDER,** T., and **BURG,** GUSTAV VON.
1889–1916. Catalogue des Oiseaux de la Suisse élaboré, etc. Liv. 1–12. *3 vols. 8vo. illust.* *Geneva and Berne.*
This (the French edition of the work) is by far the most elaborate treatise on the subject, written by the best known modern ornithologists of Switzerland. G. de Burg is the latest of the Swiss editors to contribute. The present copy is from the Cabanis-Reichenow collection. *See also* STUDER, THEOPHIL.

**** and **STUDER,** THEOPHIL.
1892. Catalogue distributif des oiseaux de la Suisse. Katalog der schweizerischen Vögel und ihrer Verbreitungsgebiete. Catalogo degli uccelli della Svizzera e come si ripartiscano nel suo territorio; élaboré sur le catalogue questionnaire de la commission fédérale. 3me éd. *8vo. pp. 69. map.* *Berne.*
A smaller, tri-lingual edition of the 1889–1916 issue.

1899–1904. Histoire naturelle des oiseaux [de la Suisse]. *2 vols. 8vo. indexes.* [*Faune des Vertébrés de la Suisse*, vol. II (of five vols.).] 1st pt. 1899. *pp. x+840. 1 col. map. 135 text-figs. index.* 2nd pt. 1904. *pp. ii+841–1743+36. 3 col. pl. 120 text-figs. append. index.* *Geneva.*
This (separately issued) treatise is the standard work on modern Swiss ornithology, well written and equally well illustrated.

FAUNA. **1882–97.** *Amsterdam.*

FAUNA. *See* VEREIN LUXEMBURGER NATURFREUNDE. *Luxemberg.*

FAUNA ARCTICA.
1900–28. Eine Zusammenstellung d. arktischen Tierformen mit besond. Berücksichtigung d. Spitzbergen-Gebietes auf Grund d. Ergebnisse d. Deutschen Expedition i. Jahre 1898. Hrsg. v. F. Römer, F. Schaudinn, A. Brauer u. W. Arndt. *4to. many pl. charts. text-figs.* *Jena.*
This magnificent quarto report has reached its fifth volume and there are several yet to be published—a fine account of Arctic and Subarctic fauna, probably the best that has yet been written.

FAUNA BOREALI-AMERICANA, etc. *See* RICHARDSON, *Sir* JOHN, 1828.

FAUNA HAWAIIENSIS. *Honolulu.*
1899–1913. (All pub.) Bernice Bishop Museum, vols. 1–3.

FAUNA D'ITALIA.
[1870–4]. 4 pts.: I. Cornalia, E. Mammiferi. II. Salvadori, T. Uccelli. III. Canestrini, G. Pesci. IV. de Betta, E. Rettili ed Anfibi. *8vo.* *Milano.*
The four parts of this systematic review of Italian fauna are also issued in separate volumes.

FAUNA LITTORALIS NORVEGIAE. *Bergen.*
1846–77. Continued as Fauna Norvegiae.

FAUNA MALAYENSIS.
1903. Zoology. Part I. *4to.*

FAUNA NORVEGIAE. 1896? *Christiana.*

FAUNA OCH FLORA. *Stockholm.*
1906–*date.* Populär tidskrift för biologi. Upsala, Stockholm.

FAUNA UND FLORA DES GOLFES VON NEAPEL. *See* NAPLES—STATIONE ZOOLOGICA.

FAUNE ET FLORE DE LA MÉDITERRANÉE. (Commission Internationale pour l'Exploration Scientifique de la Mer Méditerranée.) *Paris.*

FAUNE ICHTHYOLOGIQUE DE L'ATLANTIQUE NORD. *Copenhagen.*

FAUNUS. 1832–5; 1837. *Munich.*

FAUST, EDWIN STANTON.
1906. Die tierischen Gifte. *8vo. pp. 14+248.* (Die Wissenschaft. Sammlung naturwissenschaftlicher und mathematischer Monographien, 9 Hft.) *Braunschweig.*

FAVORITE, LA, VOYAGE OF. *See* LAPLACE, CYRILLE PIERRE THÉODORE, 1839.

FAYLE, C. ERNEST.
1929. Seafarers' Library. *See* FRYKE, CHRISTOPHER, 1700. Voyages to the East Indies.

FAYRER, *Sir* JOSEPH [1824–1900].
1872. The Thanatophidia of India . . . the venomous Snakes of the Indian Peninsula, etc. *folio. pp. 12+156. 31 col. pl.* *London.*
This is the (rather rare) first edition of a classic work, a systematic account written in a most interesting style. A second edition, with 31 col. pl., pp. 189, appeared in 1874.
1877. Venomous Animals. *8vo.* *Edinburgh.*

FEATHER BOOK. *See* MINAGGIO, DIONISIO, 1618.

(**THE**) **FEATHERED RACER,** with which is incorporated *The pigeon racing world.* Weekly.
1919. Vol. I. Vol. III, No. 89 [New Series] (1921). *8vo. pp. 701–16. 7 text-figs.* *Hull.*
The premier weekly paper devoted to pigeon racing. It is edited and conducted by Fanciers who are also trained Journalists, and who have no other aim but to make it a truly representative organ of the sport.

FEATHERED WORLD, THE. A Weekly Paper devoted to Home and Fancy Poultry, Pigeons and other Birds. Edited by Alexander Comyns.
1889–*date.* *4to.* Two vols. (52 numbers) a year. Pictured title-pages. Current. *London.*
Several supplements. Sub-title, 'Established by the late Alex. Comyns. Edited by Mrs. Comyns-Lewer'. In October 1905 the magazine *Canary and Cage Bird Life* (q.v.) was founded as the 'Canary, British and Foreign Bird Section'.
Vol. LXII, 1920, No. 1593, Jan. 2—No. 1618, June 25. *622 pp. Index. Illust.* Edited by Mrs. Comyns-Lewer and S. H. Lewer.
On the whole, the most important and most valuable of all the British ornithological trade journals, devoted (chiefly) to poultry. Many truly scientific articles have appeared in its pages, written by specialists of note; and while the barnyard aspects of domestic birds forms the chief topic yet there are numerous papers devoted to the culture of other foreign and domestic birds, hybrids, etc., as well as voluminous reports from foreign countries on domesticated birds; on exhibitions, societies, and new forms of gallinacious life. After a successful career of more than 40 years the journal still occupies a commanding position in trade circles.

FEATHERED WORLD YEAR BOOK, THE.
1910–30. Annual. Current. Editors: S. C. C. Avis and the Rev. A. Whiteley; later by Mrs. Comyns-Lewer and S. H. Lewer, in collaboration with leading specialists in each variety. 9 Arundel St., Strand, London. *illust. index.* One vol. each year except 1918 and 1919, owing to war conditions.
This publication considers barnyard poultry, including pigeons and allied birds, as frequently from the scientific as from the purely trade and sport standpoints. It is, therefore, not without interest to ornithologists as well as to fanciers, collectors, and sportsmen. The contributions are, in the main, well-written essays by specialists on the subjects they treat.

FÉE, ANTOINE LAURENT APOLLINAIRE [1789–1874].
1832. La vie de Linné, rédigée sur les documens autographes laissés par ce grand homme, et suivie de l'analyse de sa correspondance avec les principaux naturalistes de son époque. Plates and portraits. With the Manuscript of Fée, containing the plates and portraits bound in 2 vols. *Paris.*
'A. Fée, a well-known naturalist of the nineteenth century, devoted part of his life to the study of Linné. His biography of Linné, published in the *Mémoires de la société des sciences et d'agriculture de Lille*, is scarce at the present time. We acquired, besides his own copy of the book, the manuscript, from which the book was printed, written in legible handwriting; also with the plates and portraits.' The foregoing is quoted from the dealer's catalogue, No. 38, Swets and Zeitlinger, Amsterdam, 1930, where the Compiler secured the rare copy and unique original manuscript of one of the best biographies of the great Linnaeus.

FEHRINGER, OTTO.
[**1922**]. Die Singvögel Mitteleuropas. *16mo. pp. viii+107. 96 pl. col. 17 figs. glossary. index.* *Heidelberg.*
A popular work on the song-birds of central Europe, describing their appearance, songs and habits, etc., with especial reference to cage-bird fanciers. Each species is depicted by a colored plate by W. Heubach.

FEILDEN, HENRY WEMYSS [1838–?1910]. *See* NARES, G. S., 1878.
1881. *See* MARKHAM, A. H., 1881.

FELLER, F. X. DE.
1782. Examen impartial des époques . . . de Buffon.

FELLMER, *Lieut.*
1889. Experimente über Hin- und Rückflug der Militär-Brieftauben. *12mo. pp. 32.* *Berlin.*
An interesting account of experiments with carrier pigeons for military purposes. From Prof. Reichenow's library.

FENNELL, JAMES HAMILTON.
1843. Natural History of British and Foreign Quadrupeds. *8vo.* *London.*
The first edition was published in 1841.

FERGUSON, JOHN [1837–1916].
1906. Bibliotheca Chemica; a Catalogue of . . . Books in the Collection of James Young. *2 vols. 8vo.* *Glasgow.*
This is the fully annotated treatise (with biographical and biblio-

graphical notes) that Osler regarded 'as the most useful special bibliography in my library'. He elected it as a model for his *Bibliotheca Osleriana*. There is, in fact, no work in the whole range of natural history *catalogues raisonnés* (with the exception, perhaps, of Bashford Dean's *Catalogue of Fishes*) that approaches it as a painstaking, accurate, and voluminous bibliography.

FERMIN, PHILIPPE [1730–?1801].
1765. Histoire Naturelle de la Hollande Équinoxiale, ou description des Animaux, Plantes, Fruits, et autres curiosités naturelles qui se trouvent dans la colonie de Surinam; avec leurs noms différents, tant François, que Latins, Hollandois, Indiens et Négre-Anglois. *4 pts. 8vo. pp. xii+239. 1 pl. index each part.* *Amsterdam.*

FERNALD, CHARLES HENRY [1838–].
1887. The birds of Amherst and vicinity, &c. *See also* CLARK, H. L.

FERNANDO DE NORONHA, *Island of.*
(**1888**) **1890.** The Natural History of the Island ... expedition of 1887. *8vo. pp. 195+12. 5 pl. 10 photos. 1 map. illust. text.* (Wanting.) *London.*
An important contribution to the natural history of the east coast of Brazilian South America. The aves of the expedition to this penal colony were described by R. B. Sharpe; the reptilia and pisces by G. A. Boulenger, while notes on the zoology in general were made by H. N. Ridley.

FERRAGNI, ODOARDO.
1885. Avifauna cremonese. *1 vol. 4to. pp. 259. 1 col. pl. and text-figs. index.* *Cremona.*
An excellent account of the birds in the neighborhood of Cremona, describing 232 species arranged in generic order. Not in *Cat. Br. Mus.* (*Nat. Hist.*).

FERRER DE VALDECEBRO, ANDRES.
1670. Govierno general moral, y politico, hallado en las aves mas generosas, y nobles. Sacado de sus naturales, virtudes y propiedades. *8vo. pp. [20]+205+[15] illustrated. 17 steel engravings of birds; engraved title-page.* *Madrid.*
An interesting mixture of fact and fancy that throws much light on popular ideas touching the ornithology of Spain in the seventeenth century, in which, with some information of value, one finds the usual pious adjuncts to be expected from the author, 'El Padre Maestro Fray Andres'. Another edition, dated Barcelona, 1696, is in the E.S.W. Library. Neither edition listed in the *Cat. Br. Mus.* (*Nat. Hist.*).

FÉRRUSAC, ANDRÉ É. J. P. DE [1786–1836].
1823–32. Bulletin général et universel des annonces ... (Section I). *4 vols. 8vo* ... continued as Section II, Bull. Univ. des Sciences, vols. 1–27.
An important, fundamental, and (in its complete form) a very rare periodical, valuable as a work of reference. *See* BULLETIN UNIVERSEL DES SCIENCES.

FEST, FRANZ.
n.d. Ländliche Nutz-Geflügelzucht. *12mo. pp. 114. 52 text-figs. T. of c. index.* *Leipzig.*
A popular work on domestic (barnyard) aviculture.

FICK, RUDOLF. **1904.** *See* HIS, WILHELM.

FIELD. 1875–6. *See* AMERICAN FIELD.

FIELD. *London.*
1853–*date.* (Cover title, Field, the Farm, the Garden.)

FIELD. *See* FIELD ILLUSTRATED. *New York.*

FIELD CLUB. *London.*
1890–3. (Merged into Nature Notes, later Selborne Magazine.)

FIELD COLUMBIAN MUSEUM. *See* FIELD MUSEUM OF NATURAL HISTORY, CHICAGO.

FIELD AND FANCY. 1900–*date.* *New York.*

FIELD AND FARM. *Denver, Colo.*
1885–1920. (Merged into Kansas Farmer and Breeze.)

FIELD, THE FARM, THE GARDEN. *See* FIELD. *London.*

FIELD AND FOREST. (Potomac-Side Naturists' Club.) **1875–8.** (All pub.) *Washington.*

FIELD ILLUSTRATED. *New York.*
1902–*date.*

1902–12. As Sports of the Times.

FIELD, JOHN EDWARD.
1913. The myth of the pent cuckoo, a study in folklore. *8vo. pp. 11+215. front. 3 pl. London.*
A study of the myth of the pent cuckoo, 'which appears in the old "Tales of the wise men of Gotham" and ... an account of a series of sites bearing the traditional name of "Cuckoo Pens" along the southern part of the Chiltern Hills and in the neighbouring districts'.—Pref.

FIELD MUSEUM OF NATURAL HISTORY, CHICAGO. *Chicago.*
1894–*date.* Publications.

1924–*date.* Publications—Anthropology design series.

1895–*date.* Publications—Anthropological series.

1896–1916. Publications—Ornithological series (continued as Zoological series).

1894–*date.* Publications—Report series.

1922–*date.* Publications—Anthropological Dept. Leaflet.

1922–*date.* Publications—Zoology Dept. Leaflet.

1909. Publication 131. Zoological series. Vol. IX. The birds of Illinois and Wisconsin. *See* CORY, C. B.

1926. Catalogue of the Edward E. Ayer ornithological library. *See* ZIMMER, JOHN TODD, 1926.

See also CHICAGO.

FIELD NATURALIST. 1833–4. *London.*

FIELD NATURALISTS' CLUB, BRISBANE. *See* QUEENSLAND NATURALIST.

FIELD NATURALISTS' CLUB, TRINIDAD. *See* TRINIDAD FIELD NATURALISTS' CLUB.

FIELD NATURALISTS' CLUB, VICTORIA. *Melbourne.*
1884–*date.* Annual Report.

FIELD NATURALISTS' CLUB, WELLINGTON, ONTARIO. *See* ONTARIO NATURAL SCIENCE BULLETIN.

FIELD NATURALISTS' QUARTERLY. 1902–4. *Edinburgh.*

FIELD NATURALIST AND SCIENTIFIC STUDENT. 1882–3. *Manchester, London.*

FIELD NATURALISTS' SOCIETY, MANCHESTER, ENGLAND. *See* MANCHESTER FIELD NATURALISTS' AND ARCHAEOLOGISTS' SOCIETY.

FIELD QUARTERLY MAGAZINE AND REVIEW. 1870–2. *London.*

FIELD AND RIVER. 1877–82. *New Brighton.*

FIELD AND SCHOOL NATURALIST. 1894? *Cedar Falls, Iowa.*

FIELD SERVICE BULLETIN. *Paris.*
1917–19. (Parts 1–6, 85, 87, as American Field Service Bulletin.)

FIELD AND STREAM. 1874–5. *See* AMERICAN FIELD. *Chicago.*

FIELD AND STREAM.
St. Paul, Minn.; New York.
1896–*date.*
(**1896–7.** As Western Field and Stream.)

FIELD, TURF AND FARM. *See* TURF, FIELD AND FARM.

FIGUIER, GUILLAUME LOUIS [1819–94].
1867. Vies des Savants illustres du Moyen Age, etc. *8vo.* [O.] *Paris.*
Useful as a work of reference because of the excellent account of the lives and writings of Mesue, Averröes, Albertus Magnus, Vincent de Beauvais, and other medieval naturalists.

?1868. La terre avant le déluge. *8vo. illust. Paris.*
One of the most popular of this French writer's works. It has passed through several editions and translations.

[**1869**]. Reptiles and birds; a popular account of the various orders; with a description of the habits and economy of the most interesting; ed. and tr. from the Fr. by Parker Gillmore. *8vo. pp. xiii+648. 306 figs. T. of c.* *London.*
The portion devoted to birds will be found on pp. 180–648, with 262 illustrations (woodcuts) principally by Mesnel. Another edition appeared in 1870.

1870. Reptiles and birds. A popular account of the various orders; with a description of the habits and economy of the most interesting.
This edition differs from that of 1869 only in the wording of the title-page, and the addition of a frontispiece depicting hawking in the Middle Ages.

1926. Vita e Costumi degli Animali. Gli Uccelli. Translated from the French, with additions and notes by Michele Craveri. *8vo. pp. 580. 350 figs. in text. T. of c. index.* *Milano.*
A successful rendering of the birds in Figuier's famous work on the natural history of animal life with such added matter as makes the translation a textbook of ornithology in general and of Italian bird-lore in particular. The editor refers us to his own colored atlas (q.v.) as a supplementary volume on the avifauna of Italy.

FIJI, COLONY OF.
1924. *8vo. pp. 158. 78 pl. front. T. of c.* Birds of Fiji, pp. 119–25, by Casey A. Wood. *Suva.*

FILASTORI, A. U.
1895. Falconeria moderna, etc. *8vo.* (Wanting.) *Torino.*

FILHOL, HENRI [1843–]. *See* GRANDIDIER, A. Histoire physique de Madagascar, 1875–1900.

FILIPPI, CAROLINE (born FITZGERALD) DE. Ruwenzori. *See* FILIPPI, F. DE, 1909.

FILIPPI, FILIPPO DE [1814–67].
1865. Note di un viaggio in Persia nel 1862. *pp. viii+396. text illust.* *Milan.*

FILIPPI, FILIPPO DE [1869–].
1909. Ruwenzori; an account of the expedition of Prince Luigi Amedeo of Savoy. Second impression. *8vo. pp. xvi+407. front. (col.). 31 pl. 5 maps. 153 figs. T. of c. index.* *London.*
Written by Filippo de Filippi from the notes and journals of members of the expedition, and translated from the Italian by Caroline de Filippi *née* Fitzgerald.

FINGER, JULIUS MAX.
1857. Verzeichniss der Voegel der oesterr. Kaiserstaates. *4to.* *Wien.*

FINLEY, IRENE. Wild animal pets. *See* FINLEY, WILLIAM LOVELL, 1928.

FINLEY, WILLIAM LOVELL [1876–].
1907. American birds, studied and photographed from life; illustrated from photographs by Herman T. Bohlman and the author. *8vo. pp. xvi+256. front. 46 pl. T. of c. index.* *New York.*

[**1917**]. Birds of America. *See* PEARSON, T. G.

******** and **FINLEY,** IRENE.
1927. Wild Animal Pets. 1st ed. *8vo. New York.*

1928. Wild animal pets. *8vo. pp. xiv+311. front. 46 pl. T. of c.* *New York.*
Many of these chapters had already appeared in *Nature Magazine*, others, whole or in part, in various other magazines. Although most of the tales are of mammals there are a few relating to birds, such as the Californian Quail, Condor, and Gulls.

FINN, FRANK [1868–].
1900. A guide to the zoological collections exhibited in the bird gallery of the Indian Museum. *8vo.* *Calcutta.*

1901. List of the birds in the Indian museum. Part I. Families Corvidae, Paradiseidae, Ptilonorhynchidae and Crateropodidae. *8vo. pp. xv+(1)+115. 2 append. index. See also* INDIAN MUSEUM. *Calcutta.*

1904. The birds of Calcutta. 2nd ed. *8vo. pp. 4+136. illust.* *Calcutta.*

1906. Garden and aviary birds of India. *pp. ix+201. front. 6 pl. T. of c. index.* *London.*

1907. Ornithological & other oddities. *4to. pp. 16+294. pl. 56 photos. index.* *London.*
Chapters on peculiarities in animal behavior, mostly among birds.

1910. Eggs and nests of British birds. *16mo. pp. xvi+231. front. (col.). 43 pl. (19 col.). T. of c. index.* *London.*
The eggs figured are life-size, and in their natural colors, having been reproduced by the tricolor process.

1911. The game birds of India and Asia. *8vo. pp. viii+180. front. 7 pl. T. of c. 2 append.* *Calcutta.*
A reprint of a series of articles from the *Indian Forester*, revised and brought up to date.

1911. Talks about birds. *8vo. pp. x+240. 36 pl. (16 col.). index.* *London.*

1915. Indian sporting birds. *8vo. pp. xi+280. front. (col.). 102 pl. (col.). index.* *London.*

A popular account of the habits, distribution, etc., of the game birds of India, illustrated with chromo-lithographs taken from Hume and Marshall's *The Game Birds of India, Burmah and Ceylon*, 1879–81. A second printing is dated 1917.

1915. Garden and aviary birds of India. 2nd ed. *8vo. pp. ix+201. front. 6 pl. T. of c. index.* *London.*

[**1919**]. Bird behaviour, psychical and physiological. *12mo. pp. x+363. front. 15 pl. T. of c.* *London.*

An interesting treatise with chapters on the following subjects: Locomotion, nutrition, propagation, migration, senses, emotions, song and cries, weapons and fighting methods, special instincts, special physiological peculiarities, abnormalities, and relations of birds with men.

1920. How to know the Indian waders. 2nd ed. *12mo. pp. (14)+200. front. 12 pl. 2 append. index.* *Calcutta.*

1920. Frank Finn's Manual on Cage birds. *8vo. pp. 97. illust. index.* *London.*

1921. The water fowl of India and Asia. 3rd ed. *8vo. pp. 11+126. 21 pl. T. of c.* *Calcutta.*

****** and ROBINSON,** E. K.

1922–3. Birds of our country; their eggs, nests, life, haunts and identification. Vol. 1, *pp. 2+480. front. (col.). 18 pl. (col.). 573 figs.* Vol. 2, *pp. 2+481–960. front. (col.). 592 figs. append. index.* *London.*

Published in parts, and treats of the birds of Great Britain under their vernacular names. A part of vol. 2 (pp. 720–884) contains an account of the 'Birds of the Empire' arranged geographically under Asia, Africa, America, and Australia. The appendix (pp. 885–960) gives the classification and scientific names.

1923. Circè's worshippers, and other poems. *12mo. pp. 16. 1 fig. (vignette).* *London.*

Sixteen short poems, of which eleven refer to birds.

n.d. An account of six popular parrots. Some facts about macaws. *See* ARTHUR, C. P.

n.d. Familiar London birds. *8vo. pp. vi+160. front. 30 pl. 14 figs. T. of c.* *London.*

n.d. Wild animals of yesterday and to-day. *12mo. pp. (8)+9–201. front. 3 pl. T. of c. index.* *London.*

The principal reference to birds will be found under the heading 'Extinct birds and reptiles', chap. III, pp. 65–101.

FINSCH, FRIEDRICH HERMANN OTTO [1839–1917].

1865. Index ad Caroli Luciani Bonaparte conspectum generum avium. *8vo. pp. 23.*

A useful index to Bonaparte's *Conspectus*, 1850–7. The copy in hand has the original wrapper with first title-page. *See also* BONAPARTE, C. L.

****** and HARTLAUB,** C. J. G.

1867. Beitrag zur fauna Centralpolynesiens. Ornithologie der Viti-, Samoa- und Tonga-Inseln. *4to. pp. 39+290. 14 col. pl. index.*

This monograph is of especial value to students of Polynesian ornithology.

1867–8. Die Papageien, monographisch bearb. *2 vols. in 3. 8vo. col. illust. T. of c. indexes.* Vol. I. 1867. *pp. xii+561. map (col.). 1 pl.* Vol. II. 1868. Part 1. *pp. vii+480. col. pl. 2–6.* Vol. II. 1868. Part 2. *pp. 481–996+[4].* *Leiden.*

The most complete account yet written of the parrots of the world. This treatise includes a full discussion of their natural history, habits, systematic classification, anatomy, distribution, synonymy. The copy in hand is autographed by Paul Leverkühn and is from his library.

1869–79. *See* DECKEN, C. C. VON DER, 1869–79.

****** and HARTLAUB,** C. J. G.

1870. Die Vögel Ost-Afrikas. *4to. pp. x+897. col. front. 10 col. pl. index.* (Baron C. C. von der Decken's *Reisen in Ost-Afrika*, 1859–65, vol. 4.) *Leipzig.*

An important, fundamental and comprehensive description of the birds of East Africa. The copy in hand is from the Godman Library.

1870. On a collection of birds from North Eastern Abyssinia and the Bogos Country; with notes by the collector, William Jesse. *4to. pp. 197–331. 4 pl. (col.). 1 map (fold.). 2 append.* [*Bremen.*]

This collection contained 735 skins representing 219 species, about a quarter of all the birds known to inhabit north-eastern Africa, including two new to science. (Excerpt from the *Trans. Zool. Soc.*, vol. VII, pt. 4, May 1870.)

1871. Nachträge und Berichtigungen zur Ornithologie Nordost-Afrikas. *See* HEUGLIN, M. T.

1873–4. *See* HARTLAUB and LINDEMAN, *eds.*

1880–95. *See* THOMSON, C. W. (Challenger Voyage.)

1884. Ueber Vögel der Südsee. *8vo. pp. 56. Wien.*

A short account of the birds noted in a voyage to the South Seas.

1901. Das Tierreich. 15. Lief. Aves. Zosteropidae. *4to. pp. xiv+54. text illust.* *Berlin.*

FINSKA VETENSKAPS-SOCIETETEN, HELSINGFORS.

1842–*date.* Acta.

1922/3–*date.* Arsbok-vuosikirja.

1922–*date.* Commentationes biologicae.

(*See also* HELSINGFORS SOCIETAS PRO FAUNA ET FLORA FENNICA.)

FIRENS, PIERRE. *See* BLOEMART, ABRAHAM, 1640.

FIRENZE. Annali del Museo imperiale di fiscia e storia naturale. *See* ANNALI DEL MUSEO, etc.

FISCHER, FERDINAND and **PELZELN,** AUGUST.

1886. Vögel und Säugethiere von Jan Mayen. *folio. pp. 2+24. pl.* *Vienna.*

Reprinted from *Die Internationale Polarforschung*, 1882–3. *Die Österreichische Polarstation Jan Mayen*, vol. 3. Presentation copy from August von Pelzeln.

FISCHER, G. A.

[**1884**]. Übersicht der von Dr. G. A. Fischer auf seiner im Auftrage der Hamburger geographischen Gesellschaft unternommenen Reise in das Massailand. *8vo. pp. 297–394. 2 col. pl.*

An excerpt (with manuscript title and notes) on the birds of Massailand during the author's expedition, under the auspices of the Hamburg Geographical Society. More than 350 species were observed and described. This copy of a (local) contribution to our knowledge of the birds of Africa is from the library of Prof. Reichenow.

FISCHER, GOTTHELF VON WALDHEIM [1771–1853].

1801. Naturhistorische Fragmente. Erster Band. *4to. pp. viii+256. 4 fold. pl. 7 text-figs. T. of c.* *Frankfurt-am-Main.*

A philosophical treatise, of which only one volume was issued, on a variety of natural history subjects, by a professor in the University of Mainz.

FISCHER, GUIDO.

1905. Vergleichend-anatomische Untersuchungen über den Bronchialbaum der Vögel. *4to. 5 pl. (col.). 2 text-figs.* *Stuttgart.*

FISCHER, JACOB BENJAMIN [1730–93].
1791. Versuch einer Naturgeschichte von Livland. 2te. vermehrte Auflage. *8vo.* *Stuttgart.*

FISCHER, JOHANN BAPTIST.
1829. Synopsis Mammalium. *8vo. pp. xlii+752. 4 tab.* *Stuttgardiae.*

1830. Addenda . . . ad Synopsis Mammalium. (Wanting.)

FISCHER, JULIUS.
1913. Das Problem der Brütung. Eine thermobiologische Untersuchung. *8vo. pp. 3+155. index.* *Leipzig.*
A systematic treatise on birds with special reference to the problems of artificial incubation. The copy in hand is from the Cabanis-Reichenow collection.

FISCHER, LUDWIG [1828–1907].
1897. Katalog der Vögel Badens; systematische Zusammenstellung sammtlicher bis jetzt im Grossherzogthum Baden beobachteten Vögel. *8vo. pp. 86+60.* *Karlsruhe.*
Catalogue of the birds of Baden interleaved with blank pages for field notes.

FISCHER, WILHELM JOHANNES.
1914. Die Vogelwelt Württembergs. *8vo. pp. 5+323. 7 col. pl. index. supplement.* *Stuttgart.*

FISH CULTURE ASSOCIATION. **1887.** *London.*

FISH CULTURIST. **1921–*date.*** *Philadelphia.*

FISHERMAN'S MAGAZINE. **1864–5.** *London.*

FISHING GAZETTE. **1865–76.** *London.*
1877–*date.* New series.

FISHING GAZETTE. A weekly journal devoted to . . . the natural history of fish. (*New York.*)
1884–*date.*

FISHER, ALBERT KENWICK [1856–].
1893. (The) hawks and owls of the United States in their relation to agriculture. Prepared under the direction of Dr. C. Hart Merriam. (U.S. Department of Agriculture. Division of Ornithology and Mammalogy. Bulletin No. 3.) *8vo. pp. 210. 26 pl. (col.). T. of c. index.* *Washington.*
An exhaustive discussion on the economic value of American hawks and owls, based on the critical examination, by scientific experts, of the actual contents of about 2,700 stomachs of these birds. Each species is treated in detail, with a table and summary of the number of stomachs examined. The lithographed colored plates are by J. L. and R. Ridgway.

1893. The hawks and owls of the United States in their relation to agriculture. Prepared under the direction of Dr. C. Hart Merriam, Ornithologist. *8vo. pp. 210+16. 26 pl. (col.)+1 pl. (col.). T. of c. index.* *Wash.*
This copy differs only from that of the previous one of the same date, in that at the end of the volume is bound in the *Report of the Ornithologist and Mammalogist* for the year 1889, U.S. Department of Agriculture. The report (author's edition) is by Dr. C. Hart Merriam, consisting of 16 pages of text with one colored plate of the Marsh Hawk by J. L. Ridgway.

1893. *See* DEARBORN, NED.

FISHER, *Mrs.* ARABELLA BURTON (born BUCKLEY) [1840–?1913].
1882. Winners in life's race; or, The great backboned family. *8vo. pp. xv+367. front. 99 figs. T. of c. index.* *London.*

FISHER, WALTER KENRICK.
1903. Birds of Laysan and the Leeward Islands. *4to. 10 pl.*

FISHERIES NEWS BULLETIN.
Published monthly by the Fisheries branch, Department of marine and fisheries, Ottawa, Nov. 1929. *4to.* *Ottawa, Canada.*

FISHERIES SOCIETY OF JAPAN. *See* SUISANKAI.

FISHERY INVESTIGATIONS. (Ministry of Agriculture and Fisheries.) *London.*

FITZGERALD, EDWARD ARTHUR [1871–].
1897. The Highest Andes, etc. *8vo. pp. 16+390. 48 pl. 2 maps. illust. text.* *London.*
At least two editions have appeared of this valuable contribution to zoogeography. The mammals and birds are described by P. Gosse, and the reptiles by G. A. Boulenger.

FITZINGER, F. W.
1912. The Snakes of South Africa. *8vo. pp. xvi+532. pl.* *London.*

FITZINGER, LEOPOLD JOSEPH FRANZ JOHANN [1802–44]. *See* KOLLAR, VINCENZ, and others, 1848–57.
1856–65. Ueber das System und die Charakteristik der Natürlichen Familien der Vögel. 3 Abth. *8vo.* *Wien.*

1862–4. (Naturgeschichte der drei Reiche.) Bilder-Atlas zur Wissensch.-populäre Naturgesch. der Vögel, etc. *2 vols. and atlas. 8vo. and folio. 347 col. illust.* (Atlas only.) *Wien.*
This well-known naturalist made most of his valuable systematic contributions on vertebrate zoology to periodicals, especially to the *Sitzungsber. d. k. Akad. Wissensch. Wien.*

FITZSIMONS, FREDERICK WILLIAM [1875–].
1912. The Snakes of South Africa, etc. New ed. *8vo. pp. 16+547. 1 col. pl. figs. in text.* (Wanting.)
One of several admirable works on the vertebrates of South Africa by this well-known naturalist.

1919–20. Natural History of South Africa, etc. Mammals. *4 vols. 8vo. illust.* *London.*
The volumes dealing with the various sub-classes are often sold separately. The present title furnishes an admirable account of South African mammalogy.

1923. The natural history of South Africa. Birds, in two vols. *8vo.* Vol. I, *pp. xvi+288. front. (col.). 4 pl. (col.). 2 pl. (1 portr.). 224 figs.* Vol. II, *pp. vii+(1)+323. front. (col.). 4 pl. (col.). 97 figs.* *London.*
A popular account of the birds of South Africa. Volume I consists of a general account of the economic importance of birds. Volume II contains a list of South African birds with notes on their diet, followed by a description of the distribution and habits.

1930. Pythons and their ways. *8vo. pp. 155. many pl. T. of c. append.* *London.*
A systematic account of pythons and boas of the world but especially of South African species.

FLACK, *Capt.*
1866. A hunter's experiences in the Southern states of America. *8vo. pp. (6)+359. T. of c. append.* *London.*
Of the 20 chapters three are devoted to the hunting of birds. A rare work.

FLACOURT, ÉTIENNE DE [1607–66].

1661. Histoire de la grande Isle Madagascar, etc. *4to. pp. 21+471. 6 maps. 10 pl.* *Paris.*

The first edition of this work, containing many references to the faunal life of the island, appeared in 1658. Facing p. 165 is a quaint plate illustrating the mammals, birds, reptiles, and fishes of Madagascar.

FLAGG, WILSON [1805–84].

1875. The birds and seasons of New England. *8vo. pp. vi+457. front. 11 pl. (photograv.). index.* *Boston.*

FLAMEN, ALBERTO (*fl.* 17th cent.).

1650? Cyriosa Raccolta Di Varie e diuersi Vcelli. *12mo. n.p. 100 pl.*

Not only 'curious tales about birds' but altogether a curious and interesting little album of 100 copper-plates, with no text except the legends in Italian furnishing the vulgar names of the subjects. A very rare ornithologic item, not listed in the *Br. Mus. Cat.* (*Nat. Hist.*).

1659. Diuersae Auium Specie studiosissime ad vitam delineatae. Van Merlen ex. Cum priv. Regis. *8vo. engr. t.-p. 12 pl.*

A rare, Latin edition of Flamen's selected plates of birds. Not listed in the *Cat. Br. Mus.* (*Nat. Hist.*).

[*c.* **1664**]. Livre d'Oyseaux. *8vo. engr. t.-p. 12 pl. n.p.*

Copper-plate engravings of several kinds of birds in appropriate scenic environments artistically executed.

FLATTELY and **WALTON.**

1926. Biology of the Sea-shore. *8vo.*

FLEMING, GEORGE [1833–1901].

1871. Animal plagues, etc. *8vo.* *London.*

FLEMING, J. H.

n.d. Why Canada and the United States combined to stop spring shooting. *12mo. pp. 3.* [*Ottawa.*]

This little pamphlet sets forth that nothing short of joint action by both the United States and Canada can be effective in building up the reserve of our bird life.

FLEMING, JOHN [1785–1857].

1822. The philosophy of zoology; or, A general view of the structure, functions, and classification of animals. In 2 vols. *8vo.* Vol. I, *pp. lii+432. 5 pl. 2 T. of c.* Vol. II, *pp. (4)+618.* *Edinburgh.*

The principal matter relating to birds will be found in vol. II, pp. 218–65.

1828. A history of British animals, exhibiting the descriptive characters and systematical arrangement of the genera and species. 1st ed. *8vo. pp. xxiii+565. T. of c. index.* *Edinburgh.*

1842. History of British animals. 2nd ed. *8vo. pp. 23+565.* *London.*

Birds occupy pp. 41–146, of which a synopsis of 237 species are given. The present copy has pencilled notes throughout that, among other annotations, furnish a list of wildfowl of the Gulf of St. Lawrence.

FLENSBURG, OSCAR.

1868. Jemförande framställning af skelettet hos Ladusvalan, Hussvalan, Tornsvalan, Nattskarran och Göken. *8vo. pp. 32. pl.* (Lund Universitet theses.) *Lund.*

FLETCHER, ALEXANDER.

[*c.* **1874**]. Scripture natural history. *2 vols. illust.*

FLETCHER, JAMES COOLEY and **KIDDER,** D. P.

1857. Brazil and the Brazilians. *See* KIDDER, D. P.

FLETCHER, THOMAS BAINBRIGGE and **INGLIS,** C. M.

1924. Birds of an Indian garden. *pp. viii+161. front. (col.). 29 pl. (col.). 2 pl. (eggs). 41 figs. T. of c.* *Calcutta.*

The colored plates and text of these articles originally appeared in the *Agricultural Journal of India*, 1919–24. The covers and advs. of the numbers in this copy are bound in.

FLETT, CHARLES LOUIS.

[**1897**]. A dictionary of the call notes of British birds. *8vo. pp.* [7]. *Springfield.*

FLINT, TIMOTHY.

1832. The History and Geography of the Mississippi Valley. *2 vols. 8vo. pp. 740.* *Cincinnati.*

Vol. I has an account of the mammals, birds, and fishes of the Valley, and Vol. II describes the flora and fauna of the Western Country. A rare treatise, not listed in the *Cat. Br. Mus.* (*Nat. Hist.*)

FLINT, W.

1905. Science in South Africa, etc. *8vo. pp. 10+505. 2 col. pl. 1 col. map. figs. in text.* *Cape Town.*

This is a mixed account of various areas and conditions in South Africa—mostly on natural history. W. L. Sclater wrote on the Land Vertebrates and R. Broom described the Fossil Reptiles.

FLOERICKE, CURT EHRENREICH [1869–].

1897. Naturgeschichte der deutschen Sumpf- und Strandvögel. *8vo. pp. xii+406. 15 pl. index.* *Magdeburg.*

A popular but carefully written account of German marsh and shore birds.

1898. Naturgeschichte der deutschen Schwimmvögel für Landwirte, Jäger Liebhaber und Naturfreunde. *8vo. pp. xvi+392. 15 pl. T. of c.* (In Cabanis, J. L. coll. *Opuscula ornithologica*, vol. 5.) *Magdeburg.*

A practical handbook on German water-birds, in particular for ornamental purposes.

1907. Deutsches Vogelbuch, etc. Landwirte, Jäger, Naturfreunde und Vogelliebhaber, Lehrer und die reifere Jugend und für alle Gebildeten des deutschen Volkes. Illust. by Albert Kull. *4to. pp. 3+403. 30 col. pl. 120 figs. T. of c. index.* *Stuttgart.*

This is the first edition of a popular work issued at irregular intervals in eleven parts with pictured wrappers. The title-page and preface of the first part is dated 1907, but the remaining numbers have no title, the work being set and paged continuously. A second and enlarged edition was published in 1922, as part of a work on the Birds of Middle Europe.

1910. Vögel fremder Länder. 4th ed. *8vo. pp. 99. 2 pl. 22 figs. index.* *Stuttgart.*

Popular account of some exotic birds with original illustrations by J. Dahlem.

1912. Kriechtiere und Lurche fremder Länder. 8th ed.

A popular work on reptiles and amphibia.

1912. Taschenbuch zum Vogelbestimmen . . . der Nester und Eier. *pp. 260. 10 col. pl.*

The second edition of a popular work on the ornithology and oölogy of (mostly) Middle European countries.

1919. Detektivstudien in der Vogelwelt. *pp. 56. illust.* *Stuttgart.*

Curious studies in animal psychology and physiology—including birds.

1919. Zweck und Ziele der Süddeutschen Vogelwarte. *pp. 24.* *Stuttgart.*

A short account of the activities of the South German Observation Station for birds.

[**FLOERICKE,** C. E. (*contd.*)]

1922. Vogelbuch. Gemeinverständliche Naturgeschichte der mitteleuropäischen Vogelwelt. *4to. pp. 496. 54 col. pl. 99 figs. in text. index.* *Stuttgart*

An attractive and well-written, popular treatise on the birds of Middle Europe. The text of this the second edition is practically that of the first.

n.d. Papageien-Büchlein. *8vo. pp. 63. front. (col.). 5 pl. (col.). T. of c.* *Stuttgart.*

A guide to those members of the parrot family that lend themselves to captivity.

FLORA OG FAUNA, AARBOG FOR NATURVENNER, etc.

1899–1929. *8vo.* *Copenhagen et al.*

One of the most valuable of Scandinavian periodicals, both for the advanced student and the research worker in vertebrate zoology. It is actually the continuation of *Meddelelser fra Flora og Fauna* of which only one volume (1890–1) was issued.

FLORENCE. *See* ANNALI DEL MUSEO IMPERIALE DI FISICA E STORIA NATURALE DI FIRENZE.

1908. Vol. I. *4to.*

FLORENCE.—Reale Istituto di Studi Superiori pratici e di perfezionamento. (Founded 1349.)

1877–*date*. Pubblicazioni . . . Sezione di Scienze fisiche e naturali. No. 1–*date*. *8vo.* *Firenze.*

The above are separately paged serial memoirs, a complete list of which is to be found on p. 330, vol. VI, of the *Br. Mus. (Nat. Hist.) Cat.* Very few are devoted to vertebrate zoology; among them E. H. Giglioli writes (1909) on Italian vertebrates in the Florentine Museum, pp. 21; G. Ristori on Crocodilian (1890), pp. 34, 1 pl., and Chelonian remains (1896), pp. 104, 6 pl., and A. Targioni-Tozzetti on the Zoology of the S.S. 'Magenta' expedition round the world in 1863–8, mostly on invertebrates, however.

FLORENCE. Università. (Sezione di Scienze fisiche e naturali.)

1877–*date*. Pubblicazioni.

FLORIDA AUDUBON SOCIETY.

Winter Park.

1919–*date*. Bulletin. (Quarterly.)

FLOURENS, MARIE JEAN PIERRE [1794–1867].

[1853–7]. Œuvres complètes de Buffon. *See* BUFFON, G. L. L.

1860. Des manuscrits de Buffon. *pp. xcv+298. 9 reproductions of original manuscript.* *Paris.*

FLOWER, STANLEY SMYTH.

1921. List of fishes 1901–1921; with notes on their longevity. *8vo. pp. 4+26.* (Egypt—Zoological service. Publication no. 33.) *Cairo.*

Author's reprint.

1923. List of birds of prey 1898–1923, with notes on their longevity. *8vo. pp. (4)+46. T. of c. bibliogr. 2 indexes.* (Govt. Press.) *Cairo.*

Records of birds in the Giza Zoological Gardens. A letter from the author regarding the above copy is inserted.

FLOWER, *Sir* WILLIAM HENRY [1831–99].

1866. Recent memoirs on the cetacea by D. F. Eschricht, J. T. Reinhardt and W. Lilljeborg. *4to. pp. 8+312. pl.* (Ray Soc.) *London.*

The memoirs are translations of essays by well-known Scandinavian naturalists on the whales of northern waters.

1879. *See* ROYAL SOCIETY OF LONDON, 1879.

1885. An introduction to the osteology of the *Mammalia. 8vo. pp. 12+382.* (Macmillan's Manuals for students.) 3rd ed. *London.*

This edition was practically edited and amended by Hans Gadow. The first edition appeared in 1870.

******** and **LYDEKKER,** RICHARD.

1891. An introduction to the study of mammals living and extinct. *8vo. pp. 16+754. illust.* *London.*

A scientific treatise of great importance written in familiar style.

1896. Index generum et specierum animalium. *8vo.* *London.*

1896. Zoological bibliography and publication. *8vo. pp. 3.* *London.*

1898. Essays on museums and other subjects connected with natural history. *8vo. pp. xv–394. 35 figs. T. of c.* *London.*

A presentation copy from the author.

FOERSTER, F. and **ROTHSCHILD,** LIONEL WALTER (*2nd Baron*).

1906. Two new birds of Paradise. *8vo. pp. 4.* (Tring Museum.) *London.*

The two species referred to are *Astrapia rothschildi*, sp. nov., and *Parotia wahnesi, Rothsch.* sp. nov., of which a full description is given by the two authors.

FOL, HERMANN [1845–92].

1883–92. *See* RECUEIL ZOOLOGIQUE SUISSE.

FOLKARD, HENRY COLEMAN [1827–?98].

1864. The wild-fowler: a treatise on ancient and modern wild-fowling, historical and practical. 2nd ed. *8vo. pp. xxii+398. front. 12 pl. 5 figs. T. of c. index.* *London.*

The first edition was issued in 1859.

FOLKESTONE NATURAL HISTORY SOCIETY.

1868–9. Quarterly Journal. Nos. 1–4 (all pub.).

1884–1930. Proceedings.

FONTANA, FÉLIX.

1781. Traité sur le vénin de la vipère, sur les poisons américains, sur le laurier-cerise, et sur quelques autres poisons végétaux. On y a joint des observations sur la structure primitive du corps animal, différentes expériences sur la reproduction des nerfs et la description d'un nouveau canal de l'œil. *2 vols. 4to. pp. xxviii+329; xi+373. 10 engr. fold. pl.* *Florence.*

A contribution to comparative zoology by one of the foremost anatomists of the eighteenth century.

FONTENILLE. *See* HENON and MOUTON-FONTENILLE.

FORBES, EDWARD [1815–54].

1854. Zoology of the Voyage of H.M.S. 'Herald' . . . 1845–51. Vertebrates, including Fossil Mammals, by J. Richardson (q.v.).

FORBES, HENRY OGG [1851–?1921].

1885. A naturalist's wanderings in the Eastern Archipelago . . . from 1878 to 1883. *8vo. pp. xix+536. front. (col.). 21 pl. 7 maps (4 col., 3 fold.). 83 figs. T. of c. index.* *London.*

An account of the author's travels in the East Indies, to the Cocos-Keeling Islands, Java, Sumatra, Timor-Laut, the Moluccas, Buru, and Timor. Many notes on birds are scattered throughout the text, with special reports on birds on pp. 44, 268–74, 355–68, and 409–10. The colored frontispiece, one plate, and five figures are ornithological. A second edition is also dated 1885.

1894. A hand-book to the primates. *2 vols. 8vo. illust. 29 col. pl.* (Allen's Naturalist's lib.) *London.*

First edition of a popular work on the larger apes.

1896–7. A hand-book to the primates. Another ed. *2 vols. pl. maps.* (Lloyd's Natural History.) *London.*

1896–8. *See* BUTLER, A. G. British Birds, 1896–8.

1903. The natural history of Sokotra and Abd-el-kuri. *4to. pp. 48+598. illust. pl. map.* (Special bulletin of the Liverpool museums.) *Liverpool.*

FORBES, JAMES [1749–1819].

1813. Oriental memoirs: selected and abridged from a series of familiar letters written during seventeen years residence in India: including observations on parts of Africa and South America, and a narrative of occurrences in four India voyages. *4 vols. 4to. 93 pl. (part. col.). T. of c. general index.* Vol. I, *pp. xxiii+481. 40 pl., some col. T. of c.* Vol. II, *pp. xv+4+542. 28 pl., a few col. T. of c.* Vol. III, *pp. xii+487. 20 pl., some col. T. of c.* Vol. IV, *pp. xi+425+5. 5 pl. T. of c. London.*

The title sufficiently describes the contents of this well-known book of travels. The illustrations, particularly the colored plates of birds, references to which occupy a prominent place in the four volumes, are remarkably fine. The originals (q.v.) of 54 of the plates are among the treasures of the E.S.W. Library. The copy in hand is from the library of Chas. Eliot Norton.

1813. Oriental memoirs, &c. Illustrated by engravings from original drawings in the E.S.W. Library. *See* ORIGINAL DRAWINGS.

1834. Oriental Memoirs. *2 vols. and atlas. 4to and 8vo. 85 pl. London.*

This is the second edition issued by the author's daughter, the Countess de Montalembert.

FORBES, STEPHEN ALFRED [1844–1930].

1889–[95]. Natural history survey of Illinois. (State laboratory of natural history. S. A. Forbes director.) The ornithology of Illinois. Part I, Descriptive catalogue by Robert Ridgway. Part II, Economic ornithology by S. A. Forbes, &c. *See also* RIDGWAY, R.

1913. The Ornithology of Illinois. Another edition (without the col. front.). *See* RIDGWAY, R.

FORBES, WILLIAM ALEXANDER [1855–83].

1880–95. *See* THOMSON, C. W. (Challenger Voyage.)

1881. On the birds collected at Cape York, Australia. *4to. pp. 9. London.*

Report on the anatomy of the petrels . . . collected during the voyage of H.M.S. Challenger . . . Zoology (pt. VIII), vol. II; (pt. XI), vol. IV.

1885. The collected scientific papers; ed. by F. E. Beddard with a memorial pref. by P. L. Sclater. *8vo. pp. xiii+496. front. (portr.). 25 pl. (15 col.). 142 figs. 1 map. T. of c. index. London.*

FORBUSH, EDWARD HOWE [1858–1929].

1912. A history of the Game Birds, Wild-fowl and Shore Birds of Massachusetts and adjacent states. (Massachusetts State board of agriculture.) *8vo. pp. xvi+622. front. (col.). 36 pl. 108 figs. T. of c. index. Boston.*

A second edition was issued in 1916.

1913. Useful birds and their protection. 4th ed. (Massachusetts State Board of Agriculture.) *8vo. pp. xx+451. front. (col.). 60 pl. 171 figs. T. of c. append. index. Boston.*

The first edition of this work on economic ornithology was issued in 1907. The present work is largely a reprint, with the addition of an appendix embodying the necessary changes to bring the work up to date.

1916. Winter Birds at the Farm. The Starling. (State Board of Agric., Mass. Circular No. 45.) 2nd ed. *pp. 24. illust. Boston.*

Bound with this treatise on the progress made (to 1915) by the imported European Starling are several other papers on economic ornithology.

1916. (A) history of the Game Birds, Wild fowl and Shore Birds of Massachusetts. 2nd ed. *8vo. pp. 18+636. Boston.*

An amended reprint of the 1912 edition.

1916. The Natural Enemies of Birds. (Bull. 3. State Board of Agriculture.) *8vo. pp. 58. illust. Boston.*

1916. The Domestic Cat; the Bird Killer. *8vo. pp. 110. illust. Boston.*

This essay proves conclusively that the average pet cat (including the rovers from house to house) is responsible for the killing of from 200 to 500 birds yearly.

[1917]. Birds of America. *See* PEARSON, T. G.

1917. The warblers of North America. *See* CHAPMAN, F. M.

1922. The Provincetown book. *See* SMITH, *Mrs.* NANCY W. PAINE, 1922.

1923. Some under-water activities of certain waterfowl. *8vo. pp. 49. 16 figs. T. of c.* (Dept. of Agriculture, Mass.) *Boston.*

1925. Birds of Massachusetts and other New England states. Part I. Water Birds, Marsh Birds, and Shore Birds. *4to. pp. xxxi+481. 33 pl. (col.). 16 pl. (35 figs.). 85 figs. (2 maps, 8 diagr.). T. of c.* (Dept. of Agriculture, Mass.) *Boston.*

FOREIGN BIRD NOTES. The first title of Bird Notes.

FOREST, FISH AND GAME. 1907–11. *Georgia Forest Association, Athens, Ga.*

FOREST AND STREAM.

1873–*date*. A weekly journal of the rod and gun. *2 vols. annually. folio.* (Incomplete.) *N.Y.*

Despite its title this well-edited journal has published numerous papers by American naturalists of repute, several of whose contributions have been reprinted and listed in this *Catalogue.*

FOREST AND STREAM BIRD NOTES. *See* BAILEY, H. B., 1881.

FOREST AND STREAM SERIES.

1885. No. 1. Shore Birds. *8vo. New York.*

FORREST, H. EDWARD.

1899. The Fauna of Shropshire, etc. *8vo. Shrewsbury.*

1907. The vertebrate fauna of North Wales. *pp. lxxiv+537. front. 27 pl. map (col. fold.). T. of c. bibliogr. 2 indexes. London.*

Two hundred and seventy-two species of birds are enumerated.

[**FORREST,** H. E. (*contd.*)]

1919. A handbook to the vertebrate fauna of North Wales. *8vo. pp. (6)+106. T. of c. index.* *London.*

The present volume is a condensed summary of the author's larger work, *The Vertebrate Fauna of North Wales*, published in 1907, with some additional matter accumulated during the past 12 years.

FORSKÅL, PEHR [1736–63].

1775. Descriptiones Animalium Avium, Amphibiorum, Piscium . . . post mortem auctoris edidit C. Niebuhr, etc. *4to. pp. 164. 1 map.* *Hauniae.*

This fundamental treatise was, like most of this eminent writer's works, edited after his death by his friend Niebuhr.

1776. Icones rerum naturalium. *4to. pp. 15. 43 pl.* *Hauniae (Copenhagen).*

Another edition appeared the same year.

FORSTER, EDWARD [1765–1849].

1817. Catalogue Avium in Insulis Britannicis habitantium. *8vo.* *Londini.*

FORSTER, GEORG. *See* SPARRMAN, A., 1784.

FORSTER, JOHANN GEORG ADAM [1754–94].

1777. A voyage round the world, in His Britannic Majesty's sloop Resolution, commanded by Capt. James Cook, during the years 1772, 3, 4 and 5. *2 vols. 4to.* Vol. I, *pp. xviii+602+(1). front. (map, fold.). T. of c.* Vol. II, *pp. 607. T. of c.* *London.*

This excellent narrative contains many notes on the natural history of the regions visited, references to birds occurring throughout both volumes.

FORSTER, JOHANN REINHOLD [1729–98].

1771. A Catalogue of the Animals of North America, containing an Enumeration of the known Quadrupeds, Birds, Fish, . . . many . . . never described before, with Directions for Collecting, Preserving and Transporting all Kinds of Natural History Curiosities. Engraved frontispiece of the Little Falcon by R. Murray. *8vo. pp. 43. 1 pl.* *London.*

The present excessively rare volume is Thomas Pennant's copy, interleaved with manuscript notes in his own handwriting. It was certainly used in preparing his treatise on arctic zoology. A reprint was made in 1882.

1781. Indische Zoologie. *folio. pp. 8+4+42. 15 pl.* German and Latin in parallel columns. *Halle.*

This work, including the colored plates of the 1795 edition is, three-fourths of it, made up of a translation of Pennant's *Indian Zoology* (q.v.), most of the combination being eventually incorporated in later editions of Pennant's works to which it rightly belongs.

1788. Enchiridion Historiae Naturali inserviens, quo termini et delineationes ad Avium, Piscium, Insectorum et Plantarum adumbrationes intelligendas et concinnandas, secundum methodum systematis Linnaeani continentur. *8vo. pp. xvi+224.* *Halae.*

Editio princeps. A reset edition was issued in 1794 and the Blacker Library has another dated 1797. Separates on special subjects from this treatise also exist.

1790–1. An Essay on India. *4to.*

Translated from and bound up with the author's *Indische Zoologie. See also* the second edition of Pennant's *Indian Zoology.*

1797. Enchiridion historiae naturali, etc. Editio altera emendatior. *8vo. pp. 8+224.* *Londini.*

[**1799**] An VII. Manuel pour Servir à l'Histoire Naturelle des Oiseaux, des Poissons, etc. *8vo.* *Paris.*

A French translation and adaptation of the author's *Enchiridion.*

1882. A Catalogue of the Animals of North America, etc. *8vo. pp. 43. 1 pl.* *London.*

Reprinted by the Willughby Society in 1882, with a preface by P. L. Sclater. The extremely rare original (a copy of which is in the Blacker Library) was issued in 1771.

1882. Forster's Catalogue of the Animals of North America, or Faunula Americana (1771). Edited (with a preface) by P. L. Sclater. *8vo. pp. iv+43. 1 pl.* *London.*
See also WILLUGHBY SOCIETY.

1882. Forster's Animals of Hudson Bay. Edited by P. L. Sclater. *8vo. pp. iv+53.* Reprinted from the *Phil. Trans. Roy. Soc. Lond.*, vol. LXII, 1772. The pagination of the original is also given.
See also WILLUGHBY SOCIETY. *London.*

1884. Descriptiones animalium quae in itinere ad Maris australis terras per annos 1772, 1773 et 1774 suscepto collegit. *8vo. pp. xiii+424.* *Berolini.*

An excellent, annotated excerpt from the author's works published in Berlin by the *Akademie der Wissenschaften.*

FORSTER, THOMAS IGNATIUS MARIA [1789–1860].

1808. Observations on the brumal retreat of the swallow, to which is annexed a copious index to many passages relating to this bird, in ancient and modern authors, by Philochelidon [pseud.]. *8vo. pp. 27+[5].*

The first edition of this contribution to a very old controversy is a very rare item. The present copy is from the Mullens Library.

1817. Observations of the natural history of swallows, to which is added a general catalogue of British birds. 6th ed. *8vo. pp. xiv+97. front. 4 pl. append.* *London.*

There are two editions of 1817, differing slightly in their titles only. The 'Catalogus Avium', etc., pp. 65–97 is the same as that issued separately by Edw. Forster under his own name and in the same year.

1824. The perennial calendar, and companion to the almanack; illustrating the events of every day in the year. *8vo. pp. xxvii+804. 5 indexes.* *London.*

Notices of birds and other animals figure throughout these pages.

FORSTLICH - NATURWISSENSCHAFTLICHE ZEITSCHRIFT. 1892–8. (All pub.) *Munich.*

FORTESCUE, THOMAS, *Baron* CLERMONT.

1859. A guide to the Quadrupeds and Reptiles of Europe. *12mo. pp. 8+277.* *London.*

A useful manual of little scientific importance.

FORTIS, ALBERTO [1741–1803].

1778. Travels into Dalmatia, etc. *4to.* (Wanting.) *London.*

FORTSCHRITTE DER GEOLOGIE UND PALAEONTOLOGIE. 1923–*date.* *Berlin.*

FORTSCHRITTE DER NATURWISSENSCHAFT IN BIOGRAPHISCHEN BILDERN. 1856–7? *Berlin.*

FORTSCHRITTE DER NATURWISSENSCHAFTLICHEN FORSCHUNG. 1910–*date*. *Berlin.*

FOSTER, Lyman Spalding.

1892. The published writings of G. N. Lawrence, 1844–91. *8vo. pp. 12+124. portr.* (U.S. National Museum. Bull. 40.) *Washington.*

Author's reprint.

1894. A consideration of some ornithological literature. (*Proceedings Linnæan Society*, New York, No. 6, 1894.) *8vo. pp. 53. New York.*

Author's repaged reprint.

FOSTER, Michael [1836–1907].

1885. The works of F. M. Balfour. *See* BALFOUR, F. M.

1898–1902. The scientific memoirs of Thomas Henry Huxley. *See* HUXLEY, T. H.

**** and **BALFOUR,** F. M.

1902. The Elements of Embryology. *8vo. pp. 16+486. illust.* Second edition ed. by Adam Sedgwick and Walter Heape. *London and New York.*

The first edition appeared in 1874.

FOSTER, Thomas.

[**1882**]. Birds with teeth. *See* PROCTOR, R. A. Nature studies.

FOTHERGILL, Charles.

1799. Ornithologica Britannica. *1 vol. folio.* (Wanting.) *York.*

FOTHERGILL, William Edward.

1890. Zoological types and classification. *12mo. pp. xi+214. T. of c. Edinburgh.*

FOUNTAIN, Paul and **WARD,** T.

1907. Rambles of an Australian Naturalist. *8vo. pp. 8+343. index. London.*

The editor has made a speciality of describing deserts and forests (with a history of the flora and fauna he encountered in them) of North (1902) and South America (1901); W. H. Hudson writing a preface to the former.

FOWLER, G. Herbert. **1912.** *See* CHALLENGER SOCIETY.

FOWLER, Henry Weed.

1907. The Amphibians and Reptiles of New Jersey. (New Jersey State Museum, Annual Report.) *Trenton.*

This author has also reported upon the N.J. Fishes, fossil and recent.

1928. The Fishes of Oceania. *Mem. of the Bernice P. Bishop Mus.*, vol. x. *Honolulu.*

This work is largely based upon the 1,400 specimens stored in the Museum. It contains a bibliography, with annotations of papers having ichthyologic references to Oceania.

FOWLER, William Warde [1847–?1919].

1886. A year with the birds by an Oxford tutor. 2nd ed. *8vo. pp. xii+179. front. T. of c. index. Oxford.*

1888. Tales of the birds. *8vo. pp. (12)+209. front. 7 pl. T. of c. London.*

1891. A year with the birds. 3rd ed. *pp. xv+265. front. 2 pl. 18 figs. T. of c. index. London.*

1895. Summer studies of birds and books. *8vo. pp. 10+288. pl. figs. in text. New York.*

A series of popular chapters on birds.

1902. More tales of the birds. *8vo. pp. 4+232. front. pl. London.*

FOX, George Townsend [ob. 1847].

1827. Synopsis of the Newcastle museum, late the Allan, formerly the Tunstall, or Wycliffe museum; to which are prefixed memoirs of Mr. Tunstall, the founder. *8vo. pp. xxii+312. 7 pl. (1 portr.). 9 figs. T. of c. Newcastle.*

FOX, Herbert [1880–].

1923. Disease in captive wild mammals and birds. *8vo. pp. vii+665. 87 pl. (part col.). T. of c. bibliogr. index. Philadelphia.*

FRAAS, Eberhard [1862–].

1896. Die schwäbischen Trias-Saurier, etc. *4to. Stuttgart.*

On a local deposit of (German) reptilian fossil forms.

FRAIPONT, Julien Jean Joseph [1857–1919].

1910. Oiseaux. *folio. pp. 2+130. pl. See* SELYS-LONGCHAMPS, M. E. DE. *Brussels.*

FRAM. Norwegian Exploring Vessel. *See* VIDENSKABS-SELSKABET (1904)–7–11.

FRA NATURENS VÆRKSTED; populært Tidsskrift for Naturkundskab.

1912–17. *5 vols. 4to. illust. Kjøbenhavn.*

FRANÇAIS, LE. French Exploration Vessel. *See* FRANCE. EXPÉDITION ANTARCTIQUE FRANÇAISE.

FRANCE, ACADÉMIE DES SCIENCES DE L'INSTITUT DE. *See* ACADÉMIE . . . FRANCE, 1901–22.

FRANCE. Expédition Antarctique Française . . . par J. Charcot (1906)–08. Documents scientifiques *4to.* (Wanting.) *Paris.*

This, the first of two expeditions, is described in 18 fascicules, separately dated. Relatively little is said about the vertebrate zoology of the voyage. E. L. Trouessart (1907, pp. 27, 4 pl., figs. in text) describes the *Mammifères Pinnipèdes*; R. Anthony (1907, pp. 17, 2 pl., text-figs.) the Birds and Seals; A. Ménégaux, Birds (1907, pp. 79, 12 pl., 1 map); L. Vaillant (1906, pp. 51, illust. text), the Fishes.

****. Deuxième Expédition Antarctique Française (1908–10) . . . 'Pourquoi-Pas?' . . . par J. Charcot. Documents scientifiques. *4to. Paris.*

The account of this second antarctic voyage of discovery appeared 1911–17 in 20 fascicules; to 1921, 21 vols. Generally each paper of the report is separately paged and dated. As was the case of the first expedition vertebrate zoology is not extensively treated. However, J. Liouville wrote on the Whales (1913), pp. 6+276, 15 pls., numerous text-figs.; L. Gain, the Birds (1914), pp. 200, 15 pl., 2 col. maps, text-figs.; L. Roule (1913) the Fishes, pp. 24, 3 pl. (plain) and 1 col. pl.

****. *See* VOYAGES, FRENCH.

FRANCÉ, Raoul Heinrich [1874–].

1910. Denkmäler der Natur. *8vo. pp. 79. illust. Leipzig.*

1910. Die Natur in den Alpen. *8vo. pp. 84. illust. Leipzig.*

FRANCHET, Adrien [1834–1900].

1882. Sertulum Somalense. *8vo. pp. 70. pl. See* RÉVOIL. MISSION G. RÉVOIL AUX PAYS ÇOMALIS. *Paris.*

FRANCIS, WILLIAM and **MULLIN,** JOHN.
[1923]. The British Guiana handbook, 1922. *8vo. pp. x+300. front. (portr.). 56 pl. 1 map (col. fold.). T. of c. append. index.* *Georgetown.*
The birds are described on pp. 83–6, with one illustration, and again on p. 288 there is a list of wild birds absolutely protected, as well as one of wild birds protected during the close season.

FRANCKLIN, H.
n.d. Utility fowls; their selection, improvement and diseases. *12mo. pp. 36. 17 figs.* *London.*

FRANÇOIS, P.
1885. Contributions à l'étude du système nerveux des Hirudinées. *8vo. pp. 112.* *Paris.*

FRANKFURT-AM-MAIN.
1834–45. Museum Senckenbergianum; Abhandlungen aus dem Gebiete der beschreibenden Naturgeschichte von Mitgliedern der Senckenbergischen naturforschenden Gesellschaft in Frankfurt am Main. Vols. 1–3 (all pub.). *4to. pl.*

FRANKFURT-AM-MAIN. Naturwissenschaftlicher Beobacter. (Zoologischer Garten, 1–46: Zoologischer Beobacter.) **1863–1922.** (All pub.)

FRANKLAND, JONATHAN.
1859–60. La Vie des Animaux, etc. *6 vols. 8vo.* (Wanting.) *Paris.*

FRANKLIN, *Sir* JOHN [1786–1847].
1823. Narrative of a Journey to the Polar Sea . . . in 1819–22. With an Appendix relating to Natural History. *4to. pp. xvi+768. 30 pl. (col.). 4 maps.* *London.*

1828. Narrative of a Second Expedition . . . to the Polar Sea . . . in 1825–27. *4to. pp. xxiv+319. 31 pl. 6 maps. text illust.* *London.*

FRANZ, VICTOR.
1909. Das Vogelauge.

FRANZIUS, WOLFGANGUS [1564–1628].
1665. Historia animalium. *12mo. pp. 48+779.* *Amsteld.*
At least six previous and several subsequent editions were published of this sacred history of animals for the use of theological students.

FRASER, HUGH [1860–].
1923. 'Amid the high hills. *8vo. pp. xv+224. front. (col.). 31 pl. (15 col.). 19 figs. T. of c. index.* *London.*

FRASER, LOUIS.
1849. Zoologia typica, or figures of new and rare Mammals and Birds . . . in the Zoological Society of London. *folio. pp. 8+70. 70 col. pl. with descriptive text.* *London.*
A well-known work of considerable scientific value, issued in parts and limited to 250 copies. In the present volume the covers of pts. 1–14 are bound in.

FRAUENFELD, GEORG VON [1807–73].
1868. Neu aufgefundene Abbildung der Dronte und eines zweiten kurzflügeligen Vogels, wahrscheinlich des Poule Rouge au Bec de Bécasse der Maskarenen in der Privatbibliothek S. M. des verstorbenen Kaisers Franz, hrsg. von der K. K. zoologiisch-botanischen Gesellschaft. *folio. pp. [6]+16. 4 pl.* *Wien.*
One of the best accounts of the Dodo, describing the discovery in Vienna of a painting of that extinct bird. The picture is reproduced in color. On two other large folio plates are outline drawings of every picture of the Dodo to the date of publication of this interesting monograph. The present volume is from the Cabanis-Reichenow collection.

1871. (Die) Grundlagen des Vogelschutzgesetzes. *8vo. pp. 18.* *Wien.*
A brief statement of laws for the protection of birds in Austria.

FREDERICK II, *Emperor of Germany* [1194–1250].
13th century. Two photostats of the Vatican Library MS. shelved as Pal. Lat. 1071, with notes by Casey A. Wood, made in Rome, 1930. *folio. pp. 8.*
This reproduction of part of the famous MS. *De arte venandi cum avibus* includes pictures of all the bird portraits painted in this unique manuscript.

1596. Reliqua librorum Friderici II . . . De arte venandi cum avibus, cum regis Manfredi additionibus. Ex membranis vetustis nunc primum edita. Albertus Magnus de Falconibus, Asturibus, et Accipitribus. *8vo. pp. 16+414.*
Augustae Vindelicorum.
The above title heads one of several printed copies of a six-part codex of a medieval manuscript on hawking by the celebrated Frederick II who was assisted in its preparation by his son, King Manfred of Italy. The original manuscript was subsequently edited and amended by Albertus Magnus. The Compiler examined in the Vatican Library a beautifully illustrated thirteenth-century codex, prepared by Frederick and Manfred shortly before the death of the latter, in which many birds of chase are carefully pictured and described.

1788–9. Reliq. Librorum Friderici II., Imp. De Arte Venandi cum Avibus cum Manfredi Regis additionibus, &c., accedunt Alberti Magni Capita de Falconibus Asturibus & Accipitribus quibus annotat. add. suas Jo. Gottl. Schneider. Tome I. 3 engraved plates. Ad Reliq. Librorum Friderici II & Alb. Magni Capita Commentarii, &c., cum Auct. Emend. atque annot. ad Aeliani de Nature Animal. Libros. Auctor Jo. Gottl. Schneider. Tome II. 3 engraved plates. *in 1 vol. 4to.* *Lipsiae.*
The best and most complete account of the zoological works of the celebrated Emperor.

1896. Bücher von der Natur der Vögel und der Falknerei mit den Zusätzen des Königs Manfred; aus dem Lateinischen übersetzt von H. Schöpffer. *folio. pp. xvi+212. 8 pl. 40 figs. index.* *Berlin.*
This is a German translation from the Latin of the celebrated treatise *De arte venandi cum avibus*, by the Hohenstaufen emperor Friedrich II, a book which can still be consulted profitably. It was first printed in Augsburg in 1596. The present edition is illustrated with 8 plates and 40 text-figures by the translator.

FREEMAN, G. E.
1869. Practical Falconry, etc. *8vo.* *London.*

FREIBURG IN BREISGAU. Naturforschender Gesellschaft zu Freiburg.
1858–85. Bericht ueber die Verhandlungen.
1886–1930. Berichte.

FRENCH, JOHN C. [1858–] and **others.**
1919. The passenger pigeon in Pennsylvania. *8vo. pp. 7+257. front. (portr.). 24 pl. 20 figs. index.* *Altoona, Pa.*

FRENCH, NATHANIEL STOWERS [1854–?1925].
1902. Animal activities; a first book in zoology. *8vo. pp. xxi+262. illust. 205 figs. T. of c. index.* *New York.*

FRENZEL, AUGUST.
1892. Die Zwergpapageien. *12mo. pp. 8+55. T. of c.* (Universal-Bibliothek für Thierfreunde, No. 20.) *Leipzig.*
A systematic catalogue of the typical parrots of the world with references to the literature on each species.

FREUNDE DER NATURWISSENSCHAFTEN IN WIEN.
1846–50. Bericht über die Mittheilungen.

FREYCINET, LOUIS CLAUDE DESAULSES DE [1779–1842].
1824. Voyage autour du monde . . . Exécuté sur les corvettes de S. M. l'Uranie et la Physicienne, pendant les années 1817, 1818, 1819 et 1820. *2 vols. 4to and folio. atlas.* *Paris.*
In this famous voyage the fauna are described (with many species new to science) by Quoy and Gaimard.

FREYER, HEINRICH [1802–67].
1842. Fauna der in Krain bekannten Säugethiere, Vögel, Reptilien und Fische. *4to. pp. 8+90.* *Laibach.*

FRIBOURG. Société fribourgeoise des sciences naturelles.
1879–*date.* Bulletin, Compte-rendu.

FRIČ, ANTONÍN JAN [1832–?1913]. *See* FRITSCH, ANTON JAN (the German form of the author's Czech name).

FRICK, CHRISTOPH. [17th cent.].
[**1929**]. Voyages to the East Indies. Introd. and notes by C. E. Fayle; tr. from the Dutch. *8vo. pp. 44+276. pl.* (The Seafarer's Library.) Review by John Still inserted. *London.*

FRICKER, ANTONIUS.
1827. Dissertatio inauguralis de Oculo Reptilium. *4to.* (Wanting.) *Tubingae.*

FRIDERICH, C. G.
1849. Naturgeschichte aller deutschen Zimmer-Haus- und Jagdvögel, nebst einem Anhange über die ausländischen Vögel, welche in Deutschland im Handel vorkommen. *8vo. pp. 10+660. pl.* *Stuttgart.*
First edition (very rare) of this useful handbook on the care of domestic and caged birds—including hunting falcons. No copy in the *Br. Mus. Cat.* (*Nat. Hist.*).

1876. Vollständige Naturgeschichte der deutschen Zimmer-, Haus-Voegel, etc. 3rd. ed. *8vo. pp. 68+942. 20 col. pl.* *Stuttgart.*

[**1883**]. Die nützlichen Vögel. *12mo. pp. iv+112. 60 col. pl. index.* *Lausanne.*

1905. Naturgeschichte der Deutschen Vögel. *4to. pp. 859. 57 pl. with 410 col. figs. T. of c. index.* *Stuttgart.*
The fifth edition, the first one having appeared in 1849, and the sixth in 1923. The copy in hand is from the Cabanis-Reichenow collection.

FRIEDLÄNDER, RAPHAEL *und Sohn.*
1879–1930. Naturae Novitates (q.v.).

1880–6. Bibliotheca historico-naturalis et mathematica; Lager-Catalog. Naturwissenschaften—Exacte Wissenschaften. *8vo.* *Berlin.*

1901. Zoologisches Adressbuch. Namen und Adressen der lebenden Zoologen, etc. *2 Thl. 8vo.* *Berlin.*

FRIEDMANN, HERBERT [1900–].
1929. The Cowbirds. A study in the biology of social parasitism. *8vo. pp. 18+421. 29 pl. 12 text-figs.* *Springfield, Ill.*
A serious and most interesting study of these Cuckoo-like birds in North and South America, to which countries the Hangnests or Icteridae are confined. The author has recently been appointed to the important position of Curator of Birds in the Smithsonian Institution where his further investigations of parasitism in bird life will be readily carried on.

FRIEDRICH-WILHELMS UNIVERSITÄT—Zoologische Sammlung.
1854. Nomenclator avium Musei zoologici berolinensis. *8vo. pp. viii+123. index.* *Berlin.*
Presentation copy to P. L. Sclater. MS. notes inserted.

1888. Liste der Autoren zoologischer Artbegriffe zusammengestellt für die zoologische Sammlung des Königlichen Museums für Naturkunde in Berlin. *8vo. pp. [4]+87.* *Berlin.*
A useful list of authors of zoological literature with proposed abbreviations of their names for reference.

FRIES, BENGT FREDRIK [1799–1839] and **others.**
[**1892–5**]. A history of Scandinavian fishes with 55 coloured plates by Wilhelm von Wright. Tr. from the Swedish. *2 vols. folio.* *Stockholm.*
This, the second edition of a well-known work, has been revised and amended by F. A. Smith. In this form it is one of the chief authorities on North European fishes.

FRIESEN, JOHAN OTTO VON.
1860. Öfversigt af sveriges ornithologiska litteratur. *8vo. pp. 44.* (Uppsala University thesis.) *Stockholm.*

FRISCH, FERDINAND HELFREICH [1707–58].
1733–63. Vorstellung der Vögel. *See* FRISCH, JOHANN L.

FRISCH, JOHANN LEONHARD [1666–1743] and others.
1733–63. Vorstellung der vögel in Teutschland, und beyläuffig auch einiger fremden, mit ihren natürlichen farben. *2 vols. folio. portr. 253 col. pl.* Unpaged; plates numbered. *Berlin.*
The birds are divided into 12 classes, and each class is treated in a separate section, having special t.-p. dated 1733 to 1763. Titles vary slightly. At the author's death in 1743, only the first 4 classes were completed, and his son, Jodocus Leopold Frisch, assisted by Baron Zorn, assumed charge of the preparation of the text. Nearly all of the plates were engraved and colored by another son, Ferdinand Helfreich Frisch, who had charge of the publication for 22 years. After his death, in 1758, his son had the work completed. This first edition is a rare classic—a pictorial account of the birds of Germany which appeared at irregular intervals during 30 years in 14 parts and a supplement. A later edition (1817) was issued with prints of some of the original plates, and in part altered text. A complete account of this interesting contribution to ornithology is furnished by Schalow in his *Beiträge zur Vogelfauna der Mark Brandenburg*, p. 63, 1919. The present copy, bound in the original calf, is from Baron Dimsdale's library.

1817. Vorstellung der Vögel Deutschlandes. *Berlin.*
A later edition of the *editio princeps*, 1733–63.

FRISCH, JOST (JODOCUS) LEOPOLD [1714–87].
1733–63. Vorstellung der Vögel in Teutschland. *See* FRISCH, JOHANN L.

FRITSCH, ANTON JAN (FRIČ, A. J.) [1832–1913].
1852–70. Naturgeschichte der Vögel Europa's

[**FRITSCH,** A. J. (*contd.*)]
1 vol. text, 8vo, and 1 folio atlas. Vol. I. 1852–70. *pp. xv+506+12. T. of c. index.* Vol. II. Atlas. *no t.-p. folio. 61 col. pl.* *Prag.*

This rare work consists of German text accompanying the colored plates that portray about 700 species of European birds, all of which are fully described. The names of species are given in Latin, German, Czechish, and French. This is the original edition, but there were subsequently printed more or less complete and amended issues both in German, Bohemian, and English. The author's Czechish name was Frič. Not listed in the *Br. Mus. Cat.* (*Nat. Hist.*).

1898. Naturgeschichte der Vögel Europa's. 3te Aufl. *8vo. pp. xv+506+[12]. T. of c. index.* [Vol. II.] Atlas. ?1870. *MS. t.-p. folio. 61 col. pl.* (*over 700 sm. figs.*). *Prag.*

Almost identical with the first edition. As the author furnishes no preface to a second edition—indeed, does not mention it—and skips from 'Vorwort zur ersten Auflage' to 'Vorwort zur dritten Auflage', one may assume that he regards the Czechish edition (?1870) or the English translation (1877) as filling that position. A prospectus to this edition, accompanied by a full-page colored portrait of *Bubo maximus*, Bp. from plate 12, was inserted in the text volume in hand. The two volumes are a present from the author to Prof. Reichenow of whose library they once formed a part. He has made a few marginal notes and inscribed the blank title-page of the Atlas as follows: 'Naturgeschicte der Vögel Europa's von Dr. Anton Fritsch Atlas, Prag 1870. Verlag des Vorfassers. In commission bei F. Tempsky.'

FROHAWK, Frederick William [1861–].
1919. British Museum (Natural History). Economic series No. 9. Birds beneficial to agriculture. *8vo. pp. vi+47. 22 pl. T. of c. index.* *London.*

1929. *See* ORIGINAL DRAWINGS.

FROST, Charles. *See* HORN, W. A. Report on the . . . Scientific Expedition, 1896.

FRYKE, Christopher and **SCHWEITZER,** Christopher.
1700. Voyages to the East Indies. Reprinted in the Seafarers' Library, 1929. With Introduction and Notes by C. Ernest Fayle. *8vo. 8 half-tone pl.* *London.*

These two Voyages, undertaken in the seventeenth century by naturalist-adventurers in the service of the Dutch East India Company, contain many references to the faunal and floral life of India, Malayia, and Ceylon.
Frick (Fryke) was a surgeon of Ulm and seems to be the more reliable observer of the two. His relative, F. Frick, had already published several medical works, so that he was himself probably not quite unknown to science.

FUERTES, Louis. **1927.** *See* ALLEN, A. A.

FUGLENE VED DE DANSKE FYR. (Annual.) *See* JAHRESBERICHT ÜBER DIE BEOBACTUNGS-STATIONEN IN DÄNEMARK.

FUHRMANN, Otto [1877–].
1914. Voyage d'exploration scientifique en Colombie, etc. *4to. pp. 116+1,090. illust. 24 pl. 2 maps* (*1 fold.*). (*Mémoires de la Société neuchâteloise des sciences naturelles,* vol. V.) *Neuchâtel.*

FULCHER, F. A.
?1900. Birds of our island. *8vo. pp. 368. front. 19 pl. 76 figs. T. of c. index.* *London.*

FULLJAMES, H. J.
n.d. The chaffinch. *24mo. pp. 26. 3 figs.* *London.*

n.d. The Greenfinch. *24mo. pp. 27. 2 figs.* *London.*

n.d. Insectivorous British birds. *24mo. pp. 26. 1 fig.* *London.*

n.d. The siskin and redpoll. *24mo. pp. 29. 1 fig.* *London.*

FULTON, Robert [1765–1815].
[1874–6]. The illustrated book of pigeons. *4to. pp. viii+392. front.* (*col.*). *49 pl.* (*col.*). *71 figs. T. of c. append. index.* *London.*

Probably the best known popular treatise on the breeding and rearing of British pigeons. The colored illustrations are very good. It is a posthumous work, edited by Lewis Wright.

1890. The illustrated book of pigeons. *4to. 50 pl.* (*col.*). *London.*

One of several editions of this work.

FUR AND FEATHER SERIES.

Among interesting accounts of faunal life in the British Isles, H. A. Macpherson wrote tractates on the partridge (1893), the grouse (1894), and the pheasant (1895); L. H. De V. Shaw on snipe and woodcock (1903) and wildfowl (1905). These titles are more fully described under authors' headings in this *Catalogue.*

FÜRBRINGER, Max [1846–1920].
1888. Untersuchungen zur Morphologie und Systematik der Vögel. *2 vols. 4to. pp. 1,800. 30 pl.* (*part col.*). *Jena and Amsterdam.*

This monumental, classic treatise still remains the best original work on the minute anatomy of birds. *See also* BRONN, H. G., 1859.

1913. Schlussübersicht über den gesamten Inhalt von Professor Semon's Zoologischen Forschungsreisen. *folio. pp. 63.* *Jena.*

FÜR NATURFREUNDE.
1910–14. Jahrgang. 1–5 (all pub.). *Godesberg.*

FÜRST, Hermann.
1893–4. Deutschland's nützliche und schädliche Vögel. *2 vols.* Vol. I. 1893. *8vo. text. pp. iii+100+4. T. of c.* Vol. II. 1894. *folio. plates. pp.* [*2*]. *32 col. pl.* *Berlin.*

A well-illustrated work on the economic status of German birds.

GAAL DE GYULA, Gaston.
1900. Beiträge zur Erforschung des Vogelzuges. *4to. pp. 4+391. maps.* (Author's reprint from *Aquila,* vol. 7.) *Budapest.*

GABRIELSON, I. N. and **KALMBACH,** E. R.
1921. Economic value of the starling in the United States. *See* KALMBACH, E. R.

GADEAU DE KERVILLE, Henri [1858–].
1888–97. Faune de la Normandie. *4 vols. in 3. 4to. pl.* Vol. 1. Mammifères. 2–3. Oiseaux. 4. Reptiles, Batraciens et poissons. Author's reprint. (*Bull. de la Soc. des amis des sciences naturelles de Rouen,* 1887–96.) *Paris.*

1893. Die leuchtenden Tiere etc. *Illust.* *London.*

1894–1901. Recherches sur les faunes marine et maritime de la Normandie. *3 vols. 8vo. pp. 127. 11 pl.* *Paris.*

GADOW, Hans [1855–1927].
1869–91. *See* BRONN, H. G. Die Klassen, etc., 1869–91.

1883. Catalogue of the Passeriformes . . . in the collection of the British museum. *8vo. pp. xiii+385. 9 pl.* (*col.*). *35 figs. addend. 2 indexes.* *London.*

Species described number 402, of which 337 are in the Museum. The fine colored plates are by J. Smit.

1885. *See* FLOWER, *Sir* WILLIAM H., 1885.

1891. Remarks on the structure of certain Hawaiian birds. *See* WILSON, S. B. and EVANS, A. H.

1892. Crop and sternum of opisthocomus cristatus. *8vo. pp. 47. 2 pl.* (Royal Irish Academy, 1891.) *Dublin.*

This author's reprint demonstrates the fact that the embryonic development of the Hoatzin shows a faithful but slightly condensed repetition of those changes which its ancestors have acquired through adaptation to a peculiarly isolated life and diet.

1895. *See* HARMER, S. F., 1895–1905.

1896. A dictionary of birds. *See* NEWTON, A.

1898. A Classification of Vertebrata, etc. *8vo. London.*

An important contribution to the subject.

1901. Amphibia and Reptiles. Cambridge Natural History, vol. VIII. *Cambridge and N.Y.*

A classic treatise by a well-known naturalist.

1902. *See* GARDINER, J. S.

1908. Through southern Mexico, being an account of the travels of a naturalist. *8vo. pp. xvi+527. front. 9 pl. 1 map (fold.). 163 figs. T. of c. index. London.*

GAEA. Natur und Leben.
1864–1909. Merged into Naturwissenschaftliche Rundschau. *Leipzig, Cologne.*

GAILLARD, CLAUDE and **DARESSY,** G.
1905. La Faune momifiée de l'antique Égypte. *4to. Cairo.*

Although issued as part of the *Catalogue général des Antiquités Égyptiennes du Musée*, etc., vol. XXV, this interesting account of faunal mummies (cats, hawks, etc.) occasionally appears as a separate publication.

1908. (Les) oiseaux des phosphorites du Quercy. *4to. pp. 2+178. 2 pl. 37 figs. in text. Lyon.*

GAIMARD, JOSEPH PAUL [1790–1858].
1838–51. Voyage en Islande et au Groënland exécuté pendant les années 1835–36 sur la corvette la Recherche. Vols. 1–7. *8vo. illust. pl. phot. atlas. 3 vols. folio. Paris.*

A famous expedition. Vol. 7 is devoted to Zoology and Medicine, by L. E. Robert.

1842–55. *See* VOYAGES . . . EN SCANDINAVIE, etc.

******** and **QUOY.** *See* VOYAGES, FRENCH, L'ASTROLABE, 1830–5.

GAIN, LOUIS.
1908–10. *See* FRANCE. Deuxième Expédition Antarctique Française (1908–10).

1911–24. *See* CHARCOT, J. B. A. E.

[**1914**]. Oiseaux antarctiques. *4to. pp. 200. 15 pl. 2 col. maps. 71 figs. Paris.*

This second French Antarctic Expedition under Charcot in the 'Pourquoi Pas?' furnishes a very interesting account, well illustrated with photogravures, of the birds and eggs of the South Polar region, which is supplementary to the work of the First Expedition.

GAJA-SĀSTRA or SCIENCE OF ELEPHANTS. The Sar.
1927. English translation by Pandit V. Vijayaraghava. 136 illustrations of various elephants. Sanskrit text in Danavagari character. *Tirupati.*

GALLAGHER, BERNARD ALFRED and **WARD,** A. R.
1920. Diseases of domesticated birds, &c. *See* WARD, A. R.

GALLATIN, FREDERIC, *jr.*
1908. Catalogue of a collection of books on ornithology. *4to. pp. 177. portr. New York.*

The most important part of this privately printed catalogue is the collection of occasional annotations.

GALLOWAY, THOMAS WALTON [1866–].
1915. Zoology; a text-book for universities, colleges and normal schools. 3rd ed. *8vo. pp. xiii+(1)+546. 255 figs. T. of c. bibliogr. index. Phila.*

GALLWEY, RALPH WILLIAM FRANKLAND PAYNE-. *See* PAYNE-GALLWEY.

GALTON, FRANCIS [1822–1911].
1891. Narrative of an explorer in tropical South Africa, being an account of a visit to Damaraland in 1851. 4th ed. *12mo. pp. xviii+214. front. (portr.). 7 pl. (1 map). 12 figs. append. index. London.*

Forming volume V of the Minerva Library of famous books edited by G. T. Bettany. References to birds are not many; those relating to Flamingos, Wild Duck, and Ostriches, etc., will be found on pp. 13, 35, 95, 144, and 191. The first edition was issued in 1853 under the title *Tropical South Africa*. The present edition is reprinted almost without alteration, although with a more explicit title.

GAMBEL, WM.
1847–9. Remarks on Birds . . . in Upper California. *2 pts. in 1. Phila.*

GAMBLE, FREDERICK WILLIAM [1869–].
1905. Junior course of practical zoology. *See* MARSHALL, ARTHUR MILNES.

1908. Animal life. *8vo. pp. xviii+305. front. 62 figs. T. of c. index. New York.*

1911. The animal world . . . with introduction by Sir Oliver Lodge. 2nd ed. *8vo. pp. xii+256. 36 figs. T. of c. bibliogr. glossary. index. London.*

GAME AND FISH CONSERVATIONIST.
1920–*date. Richmond.*

GARDINER, EDWARD GARDINER [1854–].
1884. Beiträge zur Kenntniss des Epitrichiums und der Bildung des Vogelschnabels. *8vo. pp. 50. 2 pl. (fold.). bibliogr. Leipzig.*

A study of the embryonic development of the avian bill, with especial reference to the epitrichial layer.

GARDINER, JOHN STANLEY [1872–].
1902–6. The Fauna and Geography of the Maldive and Laccadive Archipelagoes. Vols. I–II. *4to. col. illust. Cambridge.*

In this continuation of the report on the natural history of the Ceylon groups of islands, the amphibia and reptiles are described by F. F. Laidlaw; the Fishes by C. T. Regan, and the Birds by H. Gadow and J. S. Gardiner.

******** and **TANSLEY,** A. G.
1923–4. The natural history of Wicken Fen. Pts. 1–2. *8vo.* Pt. 1, *pp. 64. front. (map col. fold.). 3 maps. T. of c.* Pt. II, *pp. 65–171. 4 pl. Cambridge.*

An account of Fenland, an area of about 73 by 36 miles lying in the counties of Lincoln, Norfolk, Suffolk, Cambridge, Northampton, and Huntingdon, their animals and plants. The birds are described in part 1, pp. 29–36.

GARDINER, LINDA.
1923. Rare, vanishing & lost British birds, compiled from notes by W. H. Hudson. *See* HUDSON, W. H.

GARDNER, GEORGE.
[**1922**]. Cage and singing birds. New and rev. ed. *12mo. pp. 136. front. 56 figs. T. of c. London.*

GARMAN, SAMUEL.
1884. The Reptiles of Bermuda. (United States National Museum. Bulletin, etc., No. 25.) *8vo. See also* JONES, J. M. and GOODE, G. B. *Washington.*

GARNER, R. L.
1892. The Speech of Monkeys. *12mo. pp. 217. New York.*
A treatise that provoked much criticism by mammalogists and others.

GARNER, ROBERT [1808–90].
1884. Natural History of Stafford, etc. *8vo. pp. 6 +551. 8 pl. 1 map. illust. text. London.*

GARNER AND SCIENCE RECORDERS' JOURNAL. **1885–92.** *See also* NATURALISTS' GAZETTE. *London.*

GARRETT, ANDREW [1823–87] and **GÜNTHER,** A. C. L. G.
1873–1910. Fische der Südsee. *4to. pp. 515. 180 col. pl. Hamburg.*

GARROD, ALFRED HENRY [1846–79].
1878. On certain variations in the vocal organs of the Passeres, etc. *See* MÜLLER, JOHANNES.

1881. Collected scientific papers; ed. by W. A. Forbes. *4to. pp. 26+537. portr. 33 pl. London.*

1881. *See* CHALLENGER REPORT, THOMSON, C. W.

GARSTANG, WALTER [1868–].
1922. Songs of the birds. *12mo. pp. 101. front. 40 figs. T. of c. London.*

GART DER GESUNDHEIT ZU LATEIN HORTUS SANITATIS.
1536. Vielen hundert Holscn. von Tieren, etc. *folio. See* HORTUS SANITATIS. *Strassburg.*

GASK, LILIAN.
1927. All about Animals. *8vo. pp. 262. 200 illust. index. London.*
One of the many attractive works by this popular writer on natural history.

GASKELL, WALTER HOLBROOK [1847–1914].
1908. The origin of vertebrates. *8vo. pp. ix+537. 168 figs. T. of c. bibliogr. index. London.*
An original and radical treatment of the subject.

GASPARINI, VINCENZO.
1894. Avifauna Marchigiana, . . . Manuale di Ornithologia sistematica, etc. *8vo. pp. lxxxix+296. Fano.*

GASTER, MOSES [1856–], *ed. and tr.*
1915. Rumanian bird and beast stories rendered into English. *8vo. pp. xx+381. T. of c. 3 append. index. London.*

GÄTKE, HEINRICH [1813–97].
1891. Die Vogelwarte Helgoland. *8vo. pp. xii+609. portr. Braunschweig.*
The first report on Heligoland as a bird observatory.

1895. Heligoland as an ornithological observatory; the result of fifty years' experience. Tr. by R. Rosenstock. *8vo. 25½ cm. pp. x+599. front. illust. portr.*
An important and well-known contribution to the study of avian migration. There are also two German editions, including the first original of 1891.

1900. Die Vogelwarte Helgoland. Hrsg. v. R. Blasius. 2 Aufl. *Braunschweig.*

1906. Die ornithologischen Tagebücher, 1848–87 . . . Herausgegeben von R. Blasius. *8vo. pp. 175. 12 col. pl. many figs. in text. Leipzig.*
An interesting supplement to the *Journal für Ornithologie*, Vol. 54.

GATTY, *Mrs.* MARGARET (born SCOTT) '*Mrs.* ALFRED GATTY' [1809–73].
1867. Parables from nature. *8vo. pp. 9+398. 29 pl. T. of c. London.*

GAUDRY, JEAN ALBERT [1827–? 96].
1862. Animaux fossiles et géologie de l'Attique.
A classic work by a noted authority.

1878. (Les) Enchaînements du monde animal . . . mammifères tertiaires. *illust. Paris.*

GAULT, BENJAMIN T.
1922. Check list of the birds of Illinois together with a short list of 200 commoner birds and [A. A.] Allen's key to birds' nests. (Illinois Audubon Society.) *8vo. pp. 80. front. (map col.). T. of c. Chicago.*

GAUSS, German Exploring Vessel. *See* DRYGALSKI, E. D., 1902–3; *also* GERMANY, DEUTSCHE SÜDPOLAR EXPEDITION, 1905.

GAY, CLAUDE [1800–73].
1844–71. Historia fisica y politica de Chile, etc. Text, *28 vols.*; Atlas, *2 vols. 8vo and folio.* The 8 vols. on Zoologia only are in the McGill libraries. *Santiago and Paris.*
This fine comprehensive work has given proper space to natural history, the mammals being treated by the author (1847), the birds by O. Des Murs, 1847, the reptiles and fishes by A. Guichenot in 1848–9. There are 13 plates of birds, 11 of mammals, 7 of living, 2 of fossil reptiles, and 11 of fishes.

GAZETTE DES ANIMAUX. **1880–95?** *Paris.*

GAZZADI, DOMENICO and **BASCHIERI,** ANTONIO.
1843–6. Zoologia morale esposta in centoventi discorsi in versi o in prosa. *2 vols. (pts.), paged consecutively. folio. pp. 478. 119 col. pl. index. Firenze.*
This voluminous work on birds and other animals consists of a rather good description by Baschieri, with colored illustrations, of the animals, followed in each instance by a poem by Gazzadi. Many quotations from the Italian poet Casti (*see* his *Animali Parlanti* in the Blacker Library) are given.

GEDNEY, C. W.
1876? Foreign cage birds. *2 vols. 8vo. pp. 236. figs. in text. index. London.*

GEE and **MOFFATT.**
1926. Chinese Birds. *pp. 144.*

GEELONG NATURALIST. *Geelong, Victoria.*
1891–8. Series 1.

1904–*date*. Series 2.

GEFIEDERTE WELT, DIE. Zeitschrift fuer Vogelliebhaber, Zuechter und Haendler.
1872–1930. Herausgegeben [later] Begruendet von Dr. Karl Russ; Herausgegeben und illustriert von Karl Neunzig in Hermsdorf bei Berlin. Weekly. *large 4to.* Illustrated by colored plates and many black cuts. Tinted, pictured wrappers. Current. A 'Beilage' issued with practically every *Heft.*

1872–85. Jahrgänge I–XIV. *Berlin.*

1886–*date*. Jahrgänge XV– . *Magdeburg.*

This magazine represents the best periodical literature on the culture of birds in general and of cage birds in particular—their anatomy, physiology, habits, daily behavior, psychology, pathology, therapy, etc. Established more than half a century ago by an educated pioneer in aviculture the conduct of this journal has been in all respects admirable. Each weekly number contained matter both of popular interest and of scientific value; and while the trade aspects of bird culture were not forgotten the encouragement of aviary and cage life was always regarded as of chief importance. The exigences of a disastrous war compelled editor and publisher to reduce (in 1918) the yearly issue of parts from 52 to 24 but the periodical seems to have survived the pinch of circumstances and still retains its place as the most valuable of the German avicultural magazines. During its career most German ornithologists contributed to its columns.

GEFLUEGEL-BÖRSE. **1879–*date*.** *Leipzig.*

GEFLUEGEL-FREUND. **1887–95?** *Saalfeld.*

GEFLUEGELHOF. *Berlin.*
1881–2. Continued as Allgemeine Gefluegel-Zeitung.

GEFLUEGEL-WELT. **1909–*date*.** *Chemnitz.*

GEFLUEGEL-ZÜCHTER. **1896–1917.** *Leipzig, Connewitz.*

GEFLÜGELZÜCHTER UND VOGEL-FREUND. Edited by Moessinger. *Frankfort.*
1879. I. Jahrgang.

1880. II. Jahrgang.
The only references known to the Compiler will be found in *Zeitschrift f. Ornithol. und pkt. Vogelzucht*, 1892; Beilage 7 pp. and Ottó Herman's List of Journals on p. 187, Budapest, 1899.

GEGENBAUR, CARL [1826–1903].
1870. Grundzüge der vergleichenden Anatomie. Zweite, umgearbeitete Auflage. *8vo. pp. xii+892. 319 woodcuts. T. of c.* *Leipzig.*

This well-known textbook by the 'father of modern comparative anatomy' furnishes an elaborate study of the subject in the realm of both vertebrate and invertebrate zoology. Although now 60 years old the work still stands as an important contribution to the subject, and this, second, edition is generally regarded as a good exposition of the views of comparative anatomists towards the end of the nineteenth century.

1887. Über die Occipitalregion und die ihr benachbarten Wirbel der Fische. *4to. pp. 33. diagr. pl.* *Leipzig.*

1898, 1901. Vergleichende Anatomie der Wirbel-Thiere mit Berücksichtigung der Wirbellosen. *2 vols. 8vo. illust.*
CONTENTS. Vol. 1. Einleitung, Integument Skeletsystem, Muskelsystem, Nervensystem und Sinnesorgane. 2. Darmsystem und Athmungsorgane, Gefässystem oder Organe des Kreislaufs, Harn- und Geschlechtsorgane (Urogenitalsystem). *Leipzig.*

GEGENBAURS MORPHOLOGISCHES JAHRBUCH. **1875–*date*.** *Leipzig.*

GEIKIE, ARCHIBALD [1835–1924].
1916. The birds of Shakespeare. *8vo. pp. ix+120. 21 pl. index.* *Glasgow.*

GEISENHEYNER, LUDWIG.
1907. Vögel. *12mo. pp. 7+57. T. of c.* (Wirbeltierfauna von Kreuznach, unter Berücksichtigung des ganzen Nahgebiets.) *Kreuznach.*

GEMEINNÜTZIGE UNTERHALTUNGEN AUS DER ARZNEIKUNDE, NATURGESCHICHTE UND OECONOMIE. **1790–1.** *Kiel.*

GEMEINNÜTZIGE UNTERHALTUNGEN ÜBER LÄNDER-, NATUR- UND VÖLKERKUNDE. **1803?** *Erfurt.*

GEMEINVERSTÄNDLICHE DARWINISTISCHE VORTRÄGE UND ABHANDLUNGEN. **1901–8?** *Odenkirchen.*

GEOLOGISCHE UND PALAEONTOLOGISCHE ABHANDLUNGEN. **1882/3–*date*.** *Berlin, Jena.*

GEMINIANO, JOANNES DE SANCTO.
1499. Summa de exemplis ac similitudinibus rerum. J. et G. Gregorius. *See also* JOHANNES DE SANTO GEMINIANO. *Venetiis.*

1584. Summa de exemplis et rerum similitudinibus locupletissima. *4to.* *Venetiis.*

GEMMILL, JAMES FAIRLIE.
1912. The Teratology of Fishes. *8vo. pp. 17+74. 26 pl. text-figs.* *Glasgow.*
A monograph of merit by a well-known naturalist on a rather unusual subject—worthy of perusal by the advanced student of vertebrates.

GEMMINGER, MAX [1820–87] and **FAHRER,** JOHANN.
1851. Fauna Boica. Naturgeschichte der Thiere Bayerns. Vol. I. *8vo. illust. pl.* *München.*
Unfortunately this projected cyclopedia did not advance further than one volume, on the mammalia.

GENERA AVIUM. *See* WYTSMAN, P.

GENEVA. Muséum d'Histoire Naturelle. *See* REVUE SUISSE DE ZOOLOGIE.

GENEVA. Société ornithologique suisse.
1865–71. Bulletin. *See* BULLETIN DE LA SOCIÉTÉ ORNITHOLOGIQUE SUISSE.

GENEVA. Société de physique et d'histoire naturelle de Genève.
1814–1930. Compte rendu des séances.

1821–1930. Mémoires.

GENEVA. Société zoologique de Genève.
1922–30. Bulletin.

GENGLER, JOSEPH.

1911. Bilder aus dem Vogelleben. *12mo. pp. 160. text-figs. index.* *Leipzig.*

1911. Die Eulen. *12mo. pp. 29.* *Stuttgart.*

A booklet on owls, illustrated by eight plates, showing conclusively that their usefulness in keeping down small destructive rodents far exceeds the little mischief resulting from their occasional visits to the farmyard.

1920. Balkanvögel. *8vo. pp. 210. 6 pl. T. of c. index.* *Altenburg, S.-A.*

A detailed account of the birds of the Balkans collected and observed during the military campaigns of 1916–18. 261 species and subspecies are described, with their local and systematic names.

1925. Die Vogelwelt Mittelfrankens. *8vo. pp. x+388. front. 1 pl. (map fold.). T. of c. index.* *München.*

On the birds of middle Franconia in Bavaria, including sections on the *Archaeopteryx* whose remains were found in this province.

GENOA. Museo civico di storia naturale.

1870–1930. Annali. With Index 1–40.

GENTRY, THOMAS GEORGE [1843–1905].

1876–7. Life-histories of the birds of eastern Pennsylvania. *2 vols. 8vo.* Vol. 1, *pp. xiv+399. T. of c. 2 indexes.* Vol. 2, *pp. (8)+336. T. of c. 2 indexes.* *Philadelphia,* 1876; *Salem,* 1877.

A popular account of the birds of Eastern Pennsylvania, chiefly valuable for its notes on the food-habits of the various species, based on analyses of stomach contents.

1878. The house sparrow at home and abroad. *8vo. pp. 128. front. (col.). T. of c. append. bibliogr.* *Philadelphia.*

The first American work dealing entirely with the English Sparrow.

1880–2. Nests and eggs of birds of the United States. *4to. pp. 300. front. 54 pl. (col.). T. of c.* *Philadelphia.*

Published in 25 parts. A popular but not very trustworthy account of the nesting habits of 50 species of North American birds.

[1882]. Nests and eggs of birds of the United States. *4to. pp. 10+300. front. 54 pl. (col.). T. of c.* *Philadelphia.*

1897. Life and Immortality; or, Soul in Plants and Animals. *illust.* *Philadelphia.*

1900. Intelligence in plants and animals: being a new edition of the author's privately issued 'Soul and immortality' ['Life and Immortality', etc.]. *8vo. pp. (4)+489. front. 7 pl. 76 figs. T. of c.* *New York.*

1900. Nests and Birds of the United States. *4to. 21 full-page col. pl.* *Phila.*

An apparently almost unknown issue of Gentry's colored plates; published loose in portfolio, with descriptive labels.

GEOFFROY SAINT-HILAIRE, ÉTIENNE [1722–1844] and **CUVIER,** G. F.

1824–47. Histoire naturelle des mammifères, avec des figures originales, coloriées, dessinées d'après des animaux vivans; publiée sous l'autorité de l'administration du Muséum d'histoire naturelle. Vols. 1–4. *4to. 431 col. pl.*

1828–9. Cours de l'Histoire naturelle des Mammifères, etc.; pouvant servir de complément de . . . Buffon. *11 pts. 8vo.* *Paris.*

This admirable treatise forms one of the more or less independent 'Suites' to Buffon's monumental *Histoire Naturelles des Quadrupèdes.*

GEOFFROY SAINT-HILAIRE, ISODORE [1805–61].

1830. Principes de philosophie zoologique, discutés en Mars 1830 au sein de l'Académie royale des sciences. *8vo. pp. 2+226.* *Paris.*

1831–46. *See* VOYAGE AUX INDES-ORIENTALES.

1832. Études Zoologiques; ouvrage comprenant l'histoire et la description d'un grand nombre d'Animaux récemment découverts, et des observations nouvelles sur plusieurs genres déjà connus. *2 fasc. (in 1 vol.). 8vo. 20 pl. col., with descriptive letterpress.* *Paris.*

1832–6. *See* BORY DE SAINT-VINCENT.

1833. Considérations sur les caractères employés en ornithologie pour la distinction des genres, des familles et des ordres, et détermination de plusieurs genres nouveaux. *8vo. 46 folio. n.p.* Original MS. by Geoffroy Saint-Hilaire.

An (?) unpublished and unique manuscript by this famous naturalist in the E.S.W. Library.

1835–44. *See* VOYAGE DANS L'INDE.

1840–64. *See* VOYAGES, FRENCH. VOYAGE AUTOUR DU MONDE . . . SUR LA VÉNUS, 1840–64.

1841. Essais de zoologie générale; ou Mémoires et notices sur la zoologie générale, l'anthropologie, et l'histoire de la science. *8vo. pp. 16+518. pl.* (Buffon, G. L. L., *Collection des suites à Buffon,* 1834– , vol. 1.) *Paris.*

1842(?)–3. Description des collections de Victor Jacquemont. Mammifères et Oiseaux. *Paris.*

1848. Leçons de zoologie générale pour servir d'introduction à l'étude de l'ornithologie. *See* BLANC, A.

1851. Catalogue Méthodique de la collection des Mammifères . . . du Muséum . . . de Paris. *4to.* (Wanting.) *Paris.*

GEOGRAPHIC MAGAZINE. *See* NATIONAL GEOGRAPHIC MAGAZINE, 1899–1930.

GERARD DE LA BASSETIERE. *See* BASSETIERE, G. DE LA.

GÉRARDIN DE MIRECOURT, SÉBASTIEN [1751–1816].

1806. Tableau élémentaire d'Ornithologie, etc. *2 vols.* Text, *8vo.* Atlas, *folio.* *Paris.*

GERBE, Z. and **DEGLAND,** C. D.

1867. Ornithologie européenne. Deuxième édition, &c. *See* DEGLAND, C. D.

1912. Catalogue des oiseaux d'Europe, pour servir de complément et de supplément à l'ornithologie européenne de Degland et Gerbe (1867). Par E. L. Trouessart (q.v.).

n.d. Merveilles de la nature. L'homme et les animaux. Description populaire des races humaines et du règne animal. Les Oiseaux. *See* BREHM, A. E.

GERFAUT, La Revue de la Société Ornithologique du Centre de la Belgique.
1909–14 and **1919–30.** Quarterly. (There were no issues during the War.) *8vo.* Published by F. Giele in Louvain (later Brussels). Generally four annual nos.

This periodical, representing much work, many struggles, and severe trials has survived the tribulations of the War and continues to publish scientific accounts of avian life and bird protection from Belgian standpoints. Although many of the collaborators and members of supporting societies were killed in action or died as the result of enemy insults the character of the contributions to the revived journal leads one to believe that it will soon again be on a firm scientific and financial footing.

GERGENS, FRANZ.
1839–51. Die Vögel Europa's, etc. *See* SUSEMIHL, JOHANN CONRAD, 1839.

GERINI, GIOVANNI.
1767–76. Storia Naturale degli Ucceli. *5 vols.* (Wanting.) *Florence.*

GERLACHE DE GOMERY, ADRIEN VICTOR JOSEPH DE [1866–].
1907. Croisière océanographique, accomplie à bord de la Belgica dans la mer du Grönland, 1905. *pp. 567. pl. illust. map.* *Bruxelles.*

n.d. Campagne arctique de 1907; extraits du journal de bord de la Belgica. *pp. 4+39.* [*Bruxelles.*]

GERMAIN, JEAN. *See* GERMANO, GIOVANNI.

GERMAIN, LOUIS.
1925. La faune des lacs, des étangs et des marais. *12mo. pp. 315. 20 col. pl. 225 figs. in text. index.* *Paris.*

A useful little treatise. To birds are assigned pp. 225–79.

GERMANO, GIOVANNI [*fl.* 1623–74].
1625. Breve e sustiale trattato . . . delli piu principali animali . . . con il corpo humano, etc. Illust. with 12 copper plates of osteologic subjects, monkey, dog, cat, several birds, bat, man *et al. sm. folio. pp. 12+58. See* B.M. CAT., p. 229. Not in Brunet. *Napoli.*

The writer was a Provençal Minorite friar, author of several works on anatomy and surgery. The present volume is very rare and among the earliest works on comparative zoology.

GERMANY. Biologische Anstalt auf Helgoland.
1896– . Wissenschaftliche Meeresuntersuchungen, hrsg. von der Kommission zur wissenschaftlichen Untersuchung der deutschen Meere, in Kiel, und der . . . Anstalt . . . Neue Folge. Vol. I. *pts. 1–2 in 1. folio. illust. pl.* *Kiel.*

GERMANY. Deutsche Südpolar-Expedition, 1901–3. **1905**–*date*?

The reports of this exploring expedition in the 'Gauss' came to an abrupt termination with the World War but they will probably be (or are being) resumed. To the date of writing little has been published on vertebrate zoology. However, vol. XV, Heft 2 (1914), is largely devoted to Deep Sea Fishes by P. Pappenheim; Surface and Coastal Fishes by M. Lampe.

GERSTAECKER, CARL EDUARD ADOLPH [1828–95]. *See* CARUS and GERSTAECKER [1863]–75.

GERVAIS, FRANÇOIS LOUIS PAUL [1816–79].
1833–9. *See* VOYAGES, FRENCH. VOYAGE AUTOUR DU MONDE SUR 'LA FAVORITE', 1833–9.

1835–44. *See* WEBB and BERTHELOT, 1835–44.

1835–47. *See* VOYAGE DANS L'AMÉRIQUE MÉRIDIONALE, 1835–47.

1839–61. *See* SAGRA, RAMON DE LA.

1840–66. *See* VOYAGES, FRENCH. VOYAGE AUTOUR DU MONDE . . . SUR 'LA BONITE'.

1850–9. *See* CASTELNAU, F. L.

1854–5. Histoire naturelle des mammifères. *2 vols. 8vo. col. pl.* *Paris.*

On the half title: 'Les Trois règnes de la nature. Règne animal.'

******** and **VAN BENEDEN,** P. J.
1859. Zoologie médicale. *2 vols. pp. 976. 197 figs.* *Paris.*

1871. Eléments de zoologie, comprenant l'anatomie, la physiologie, la classification et l'histoire naturelle des animaux. 2nd ed. *8vo. pp. 12+596. illust. pl.* *Paris.*

******** and **BOULART,** R.
1876. Les Poissons. Tome 1: Poissons d'eau douce. *60 col. pl. 39 fig.* *Paris.*

1885–91. *See* MISSION SCIENTIFIQUE DU CAP HORN.

GERVAIS, PAUL. *See* GERVAIS, FRANÇOIS LOUIS PAUL.

GESAMTKATALOG D. WIEGENDRUCKE. [1925–30.]
This monumental annotated catalogue of all known incunabula is still in process of publication.

GESCHAEFTS-BERICHTE D. GESELLSCHAFT DEUTSCHER NATURFORSCHER UND AERZTE. **1893**–*date*? *See* GESELLSCHAFT DEUTSCHER, etc.

GESELLSCHAFT ZUR BEFÖRDERUNG DER GESAMMTEN NATURWISSENSCHAFTEN. *Marburg.*
1823–*date.* Schriften.

1866–*date.* Sitzungberichte.

GESELLSCHAFT DEUTSCHER NATURFORSCHER UND AERZTE. *Leipzig.*
1924–*date.* Mitteilungen.

1822–*date.* Verhandlungen.

GESELLSCHAFT ZUR FÖRDERUNG DER NATURHISTORISCHEN ERFORSCHUNG DES ORIENTS IN WIEN.
1895–1904. Jahresbericht.

GESELLSCHAFT NATURFORSCHENDER FREUNDE, BERLIN.
1775–9. Beschäftigungen (all pub.).

1780–94. Schriften (all pub.).

1794–1803. Neue Schriften (all pub.).

1807–18. Magazin f. d. Neusten Entdeckungen, etc. (all pub.).

1819–29. Verhandlungen (all pub.).

1836–8. Mitteilungen a. d. Verhandlungen 1–3 (all pub.).

1839–1930. Sitzungsberichte.

GESELLSCHAFT DER FREUNDE DER NATURWISSENSCHAFTEN. 1847–51. *Wien.*

GESELLSCHAFT VON FREUNDEN DER NATURWISSENSCHAFTEN IN GERA. *Reuss.*

1858–*date.* Jahresbericht.

GESELLSCHAFT DER NATURFORSCHENDEN FREUNDE. *Düsseldorf.*

1798–1805. Neue Schriften.

GESELLSCHAFT FÜR NATUR- UND HEILKUNDE. 1848–1920. *Dresden.*

GESELLSCHAFT DER WISSENSCHAFTEN ZU GÖTTINGEN.

1838–95. Abhandlungen.

1751–4. Commentarii.

1758–68? Commentationes.

1808–37. Commentationes—recentiores.

1845–93. Nachrichten.

1894–*date.* Nachrichten. Geschäftliche Mitteilungen.

1769–77. Novi Commentarii.

GESNER (GESSNER), CONRAD [1516–65].

This Father of Bibliography was, says Osler, 'not only the best naturalist among the scholars of his day, but of all men of that century he was the pattern man of letters. He was barely 25 when he began to collect the materials for his *Bibliotheca*, and in three years he had finished an enormous volume, published in 1545. The usefulness of the work—which included titles in zoology—was at once recognized; parts of it were reprinted. An *Elenchus* was issued in 1551 and an *Epitome*, with a preface by Gesner, appeared in 1555'. Between them the Blacker and Osler libraries possess the most important editions of the natural history publications by this voluminous writer.

1545. Lexicon Graeco-Latinum. *folio. Basileae.*

1545. Bibliotheca Universalis sive Catalogus, etc. *folio.* (*Bib. Osler.*, No. 623.) *Zürich.*

1548. Pandectarum sive Partitionum Universalium, etc. *folio.* (*Bib. Osler*, 624.) *Zürich.*

1551. Elenchus scriptorum omnium, etc. *4to.* (*Bib. Osler.*, 627.) *Basil.*

1551–8. Historiæ Animalium. *4 vols. in 3. folio. Zürich.*

Two copies in hand, that in the Osler Library is complete; the other lacks the posthumous Liber V, *de serpentum natura.*

1553. Icones animalium quad. viviparum et oviparum quae, in historia avium Conradi Gesneri describuntur, etc. *folio. Zürich.*

An early printing of this atlas.

1555. Icones Avium omnium quae in historia avium Conradi Gesneri describuntur, etc. Title (in part) Italian, French, and German. *2 vols. in 1. vignette* Frostover. *pp. 126. index. Tiguri.*

1555. Appendix Bibliothecae Conradi Gesneri. *folio.* (*Bib. Osler.*, No. 625.)

1555. Epitome Bibliothecae Conradi Gesneri. (*Bib. Osler.*, No. 628.) *Zürich.*

1557. Vogelbuch, darin die Art / Natur und Eigenschafft aller Vöglen / sampt irer Waren Contrafactur / angezeigt wirdt . . . Erstlich durch Doctor Conradt Gessner in Latin beschriben: neüwlich aber durch Rudolff Heüsslin mit fleyss in das Teütsch gebracht / und in ein kurzte Ordnung gestelt. *folio. pp. 12+263. illust. Zürych.*

First German edition of *De avium natura*, originally published in 1555 as book 3 of the author's *Historia animalium.*

1560. Icones animalium quadrupedum viviparorum quae in historiae animalium Conradi Gesneri libri primo et secundo describuntur. Editio secunda novis eiconibus non pauciis et passim nomenclaturis ac descriptionibus auctior. *folio. pp. 128. 4 ll. with many woodcuts.* Froschoverus. *Tiguri.*

The 'Icones' are a short extract from the *Historia animalium*, containing also the woodcuts of this work with a short text. They are very much more rare than the complete edition.

1560. Nomenclator aquatilium animantium. Icones animalium aquatilium in mari & dulcibus aquis degentium.

This volume on Fishes belonged to the Cornish naturalist Jonathan Couch of Polperro, 1819. At the end are MS. notes and 16 pen-and-ink drawings by him. Osler Library.

1560. Icones Auium omnium, etc. *Editio secunda. folio.* (*Bib. Osler.*, 637.) *Tiguri.*

1574. Bibliotheca instituta et collecta primum a Conrado Gesnero . . . per Josiam Simlerum. *folio.* (*Bib. Osler.*, 629.) *Zürich.*

1598. Fischbuch das ist aussführliche Beschreibung . . . aller und jeden Fischen. von Conrad Forer ins Teutsch gebracht. *folio. pp. 6+202. illust. Franckfurt am Meyn.*

1600–18. Thierbuch, das ist ausfürliche . . . Abmahlung aller Vierfüssigen, etc. *folio.* Contents are Gesner's natural history works in German, as follows: Thierbuch, Heidelberg, 1606; Vogelbuch, Frankfurt a/M., 1600; Fischbuch, 1618; Schlangenbuch, Heidelberg, 1613. *Heidelberg.*

1600. Vogelbuch; oder, Aussführliche Beschreibung . . . aller und jeder Vögel . . . durch Rudolff Heusslein in hoch Teutsch versetzt jetzt . . . castigirt und verbessert. *pp. [16]+556. illust. Frankfurt am Mayn.*

1606. Thierbuch das ist aussführliche Beschreibung . . . aller vierfüssigen Thieren . . . von Conrad Forer ins Teutsch gebracht. *folio. pp. 4+172. illust. Heidelberg.*

1613. De serpentibus; oder, Schlangenbuch das ist ein grundtliche und volkomne Beschreibung aller Schlangen . . . durch Jacobum Carronum gemehrt . . . am jetzo . . . verteutscht. *folio. pp. 3 +72. illust. Heydelberg.*

1617–21. Historiae animalium. Editio secunda . . . auctior atque . . . emendatior. Francofurti. *5 vols. in 3. folio. illust. Frankfort.*

CONTENTS. Vol. 1. De quadrupedibus viviparis. 2. De quadrupedibus oviparis. 3. De Avium natura. 4. De piscium & aquatilium animantium natura. 5. De serpentium natura. Contains autograph of Horrebon.

There are in the present volumes over 2,000 woodcuts and the index is in seven languages. Perhaps this edition is the most useful for the student.

1832. Aeliani de natura animalium libri XVII, &c. *See* AELIANUS, C.

1929. *See* LEY, WILLY.

GESNER, JOHANN [1709–90].

1752. Autograph letter signed (in Latin) to his brother-naturalist Fredericus Gronovius concerning fossils sent him by the writer.

Johannes Gesner, a famous physician, was descended from Conrad Gesner's family and studied under Boerhaave. He was also a life-long friend of Haller.

GESSNER. *See* GESNER.

GESTRIN, JOHANNES NATH. *See* THUNBERG, C. P., 1822–3.

GEYR VON SCHWEPPENBURG, HANS and **LE ROI,** O.

1912. Beiträge zur Ornis der Rheinprovinz. *See* LE ROI, O.

GHIGI, ALESSANDRO.

1907. Ricerche sulla morfologia della piuma. *folio. pp. 42. pl.* *Bologna.*

A tractate on the minute anatomy of the feather.

GHIKA, NICOLAS D., *Prince.*

1898. Cinq mois au pays des Somalis; suivi de la faune Somalie. *8vo. pp. 6+224. portr. pl. map.* *Geneva.*

Among other observations the author made the acquaintance of the Honey Guide which he had always regarded as a myth. He followed its guidance and secured honey for his camp.

GHULAM MUHYI'D-DIN B. MUHAMMAD ABDAL BAHARLU OF LAHORE.

1838. Fa'idu'l-faras. Treatise on the horse and his diseases. *sm. 4to. ff. 123.* Persian MS.

The original MS. was written in A.D. 1833. There are no *jadwals* in the present copy but the caligraphy, paper, and condition of the MS. are good. The scribe (copyist) was S. Muhammad Ali.

GIACOMELLI, H. **1878.** *See* ADAMS, W. H. D.

GIARD, ALFRED [1846–?1917].

1911–13. Œuvres diverses. *2 vols.* *Paris.*

GIBBS, G. *See* UNITED STATES. PACIFIC RD. SURVEY, 1855–9.

GIBSON, WILLIAM HAMILTON [1850–96].

1876. The complete American trapper, or the tricks of trapping and trap making; an extended chapter on life in the woods. *12mo. pp. 300. front. 9 pl. 133 figs. T. of c. index.* *New York.*

1892. Sharp eyes: a rambler's calendar of 52 weeks among insects, birds, and flowers. *8vo. pp. xx+322. front. 220 figs. T. of c. index.* *New York.*

A reprint of this popular calendar was issued in 1897 as a second edition.

1897. Eye spy; afield with nature. *8vo. pp. xvi+264. 119 figs. T. of c. index.* *New York.*

1898. My studio neighbours. *8vo. pp. x+245. front. 95 figs. T. of c. index.* *New York.*

1901. Catalogue of the Bewick collection (Pease Bequest), by Basil Anderton and W. H. Gibson. *8vo. pp. 4+110. illust. portr. pl.* *Newcastle-upon-Tyne.*

GIEBEL, CHRISTOPH GOTTFRIED ANDREAS [1820–81].

1859. Die Säugethiere in zoologischer, anatomischer und palæontologischer Beziehung. *8vo. pp. 16+1,108.*

Second edition of a well-known and useful work, the first having appeared in 1859.

1866. Petrefacta Germaniae. Repertorium zu Goldfuss' Petrefakten Deutschlands. *4to. pp. 4+122.* *See* GOLDFUSS, G. A. *Leipzig.*

1872. Vogelschutzbuch; die nützlichen Vögel unserer Aecker, Wiesen, Gärten und Wälder. 3te. Aufl. *12mo. pp. 4+162. 88 text-figs. T. of c.* *Berlin.*

The third edition of a treatise on useful (German) birds, their care and protection.

1872–7. Thesaurus ornithologiae. Repertorium der gesammten ornithologischen Literatur und Nomenclator sämmtlicher Gattungen und Arten der Vögel nebst Synonymen und geographischer Verbeitung. *3 vols. 8vo.* *Leipzig.*

This work was issued in eight parts, divided into two sections. Part of the first volume is an ornithological bibliography devoted to titles to the date of issue; the second to a so-called *Nomenclator Ornithologicum*, or bibliography filling most of the three volumes. It is a pity that so much work should have resulted in a mixed list that is of slight value to students.

1874. Säugethiere: Bronn's Klassen u. Ordnungen des Thierreichs. *Berlin.*

One of the foremost contributions to a famous, monumental treatise on zoology.

GIESEN, JOHN [1891–] and **MALUMPHY,** T. L.

1929. Backgrounds of biology. *8vo. pp. 10+278. illust.* *Milwaukee.*

GIESSEN. Oberhessische Gesellschaft für Natur- und Heilkunde.

1849–1905. Bericht.

1910. Register zu den Bänden 1–34. *Giessen.*

GIFFORD, ED. W.

1913. Birds of Galapagos Islands; also of Cocos and Clipperton Islands. *pp. 138. pl.* Author's separate. (*Proceedings California Academy of Sciences.*)

1919. Field Notes on the Land Birds of the Galapagos Islands and of Cocos Island, Costa Rica. Author's reprint. [*Proceedings* (*Expedition, 1905*) *of the Cal. Acad. of Sciences.*]

GIFFORD, HAROLD [1858–1929].

1928. Wanderings in Africa during 1928. *4to. mimeograph.*

This presentation copy to the Compiler recites the interesting observations of an accomplished naturalist during a winter's expedition from the Cape to Cairo.

GIGLIOLI, ENRICO HILLYER [1845–?1916].

1870. Note intorno alla distribuzione della Fauna Vertebrata nell' oceano prese durante un viaggio intorno al Globo 1865–68 (in the 'Magenta'). *8vo. pp. 96. 1 col. map.* (Wanting.) *Firenze.*

This monograph treats chiefly of the zoogeography of vertebrates, and is of importance because it deals with oceanic forms.

1873. Ricerche intorno alla distribuzione geografice generale; o, Corologia degli animali vertebrati. *8vo. pp. 200. map.* *Roma.*

A companion volume to his treatise dated 1870.

1877. *See* FLORENCE. REALE ISTITUTO.

[**GIGLIOLI,** E. H. (*contd.*)]

1879–93 (**94**). Iconografia dell' avifauna Italica ovvero tavole illustranti le specie di uccelli che trovansi in Italia. Fasc. 1–51. *5 vols. folio.* Vol. I, *pp. (16)+(90). 46 pl. (col.).* Vol. II, *pp. (110). 55 pl. (col.).* Vol. III, *pp. (100). 50 pl. (col.).* Vol. IV, *pp. (100)+49 pl. (col.).* Vol. V, *pp. (100). 55 pl. (col.).* *Prato.*

A superbly illustrated and scientific treatise on Italian birds and very rare in its complete state.

[**1880**]. Elenco dei Mammiferi, degli Uccelli e dei Rettili ittiofagi . . . appartenenti alla Fauna Italiana, e catalogo degli Anfibi e dei Pesci Italiani. *8vo.* (Wanting.) (*Florence.*)

This is a rather complete (and rare) roster of Italian vertebrates desirable for purposes of reference.

1889–91. Risultati della inchiesta ornitologica. *3 vols. 8vo. map.* *Firenze.*

CONTENTS. Vol. 1. Avifauna italica. 2. Avifauna locali. 3. Notize d' indole generale, migrazioni, nidificazione, alimentazione, etc.

Presentation copy from the author with his autograph.

1907. Secondo resoconto dei risultati della inchiesta ornitologica in Italia. Avifauna Italica. *4to. pp. xxiv+784. T. of c. index.* [Minisistero di Agricoltura, Industria e Commercio.] *Firenze.*

The text of this, the second edition of Part I of the *Primo resoconto*, is mostly lists of vulgar names of birds as known to the natives in various localities of Italy, with the distribution of each. The first edition was published in 1889. The copy in hand is from the Cabanis-Reichenow collection.

GILBERT, CHARLES HENRY [1859–].

1898–9. *See* UNITED STATES. FISHERY REPORTS.

**** and **HUBBS,** C. L.

1920. The macrouroid fishes of the Philippine Islands and the East Indies. *8vo. pp. 222. illust.* (Smithsonian Institution. U.S. Nat. Mus. Bulletin 100.) *Washington.*

n.d. *See* DEARBORN, NED.

GILBERT, HUMPHREY ADAM and **BROOK,** ARTHUR.

1925. The Secrets of the Golden Eagle and of Other Rare Birds. *8vo. pp. 196. 36 (well-executed) photogravures. T. of c.* *London.*

The authors built a 'hide' 25 feet from an eyrie so that Brook's camera and Gilbert's notes furnish an admirable record of the Golden Eagle.

GILCHRIST, JOHN DOW FISHER [1866–] and **BONDE,** C. VON.

1922. Practical zoology for medical & junior students. *8vo. pp. xi+329. 105 figs. T. of c. index.* *Edinburgh.*

GILES, WILLIAM.

1924–6. The original colour print magazine. *3 pts. in 1 vol. folio.* (*bird portr.*) Pt. I, *pp. 1–40. 7 pl. (4 col.). 18 figs. T. of c.* Pt. II, *pp. 41–89. 5 pl. (3 col.). 26 figs. T. of c.* Pt. III, *pp. 91–144. 6 pl. (4 col.). 31 figs. T. of c. index.*

An interesting experiment in color printing, in which birds and their plumage tints are successfully employed.

GILL, THEODORE NICHOLAS [1837–1914].

1861. Catalogue of the fishes of the eastern coast of North America, from Greenland to Georgia. *Philadelphia.*

An important author's reprint from the *Trans. Academy Nat. Sciences.*

1873. Bibliography of East Coast fishes. (Smithson. Inst. Misc. Coll., vol. 14, pp. 37–44.) *Washington.*

Author's catalogue alphabetically arranged, followed by a *Bibliography of Pacific Coast Fishes.*

1874. A history of North American birds. *See* BAIRD, S. F., BREWER, T. M., and RIDGWAY, R.

1875. *See* BAIRD, SPENCER FULLERTON.

**** and **COUES,** ELLIOTT.

1877. Material for a bibliography of North American Mammals. (U.S. Geolog. Survey of the Territories, vol. XI, append. B, pp. 951–1081.) *Washington.*

This valuable treatise is arranged chronologically under appropriate titles and has entries to the end of 1874.

1882. Bibliography of the fishes of the Pacific Coast of the United States to the end of 1879. (Smithson. Inst. Misc. Coll., vol. 23, and as Bull. 11 U.S. Nat. Mus.)

A thorough, chronologically arranged list, often bound with the author's *Bibliography of East Coast Fishes*, 1873. to contribute an important record of American ichthyologic literature.

1885. *See* KINGSLEY, J. S., *ed.*, 1885.

1903. *See* GOODE, G. BROWN (1903).

GILLIES, WILLIAM and **HALL,** ROBERT.

n.d. Nature studies in Australia. *12mo. pp. xvi+308. front. (col.). 105 figs. T. of c. index.* *Melbourne.*

A revised edition of the original issue of 1903.

GILLISS, JAMES MELVIN [1811–65].

1855. U.S. Naval Astronomical Expedition to the Southern Hemisphere. *3 vols.* I–III (all pub.). *num. pl. (some col.).* *Washington.*

GILLIUS, PETRUS.

1533. Ex Aeliani historia per Petrum Gyllium latini facti, itemque ex Porphyrio, Heliodoro, Oppiano, tum eodem Gyllio luculentis accessionibus aucti libri XVI. De ui et natura animalium. *4to. 14 ll.+598 pp.+5 ll.* Bound in a very fine, stamped leather binding dated 1539. *Lugduni.*

This rare book contains the first description of the elephant from nature. Cf. Carus, pp. 267 and 343. The work was an important source of information for Wotton.

1562. Elephanti nova descriptio, authore Petro Gillio Albiense. *12mo. pp. 497–654.* *See* AELIANUS, 1562.

An account of the elephant, his ocular and dental apparatus, his feet and other anatomical details, to which are added remarks on some other large mammals.

GILLMORE, PARKER.

[**1869**]. Reptiles and birds. *See* FIGUIER, G. L.

1872. *See* BIART, L.

1874. Prairie and Forest. *pl.* *N.Y.*

1905. Encounters with wild beasts; illust. *12mo. pp. 8+305.* *London.*

GILMORE, ALBERT FIELD [1868–].

1919. Birds of field, forest and park. *8vo. pp. xii+318. front. (col.). 39 pl. (7 col.). T. of c. index.* *Boston.*

A popular account of 150 common birds of eastern North America.

GILMORE, CHARLES WHITNEY [1874–].

1914. Osteology of the armored *Dinosauria* in the United States National museum. *8vo. pp. xi+143. 37 pl.* (United States National Museum. Bulletin 89.) *Washington.*

GINANNI, GIUSEPPE [1692–1753].

1737. Delle uova e dei nidi degli uccelli, libro primo. *4to. pp. [7]+130. 22 copper plates. front. index.* *Venezia.*

A systematic monograph on selected birds' nests and eggs.

GIORGI, FEDERICO.

1558. Libro di Federico Giorgi, del modo di conoscere i buoni Falconi, Astori, e Sparavieri. *16mo. pp. 106 (53 ll. num.)+(6). vignette. 1 pl. 6 figs. (head-pieces). T. of c.* *Vinegia.*

One of the best known Italian works on Falconry, and one to which the English Turbervile was so much indebted in the preparation of his *Booke of Falconrie*, 1611. The present copy is the second edition, the first having appeared in 1547, with a slight variation in the title. Other editions appeared in 1567, 1573, 1595, 1607, and 1645 (q.v.). The present copy contains MS. notes in ink on the last page. All the printings are rare; apparently none in the *Br. Mus. Cat.* (*Nat. Hist.*).

1645. Libro di Federico Giorgio, del modo di conoscere i buoni falconi, astori, e sparavieri. *12mo. pp. 136+4. illust. index.* *Milano.*

A very interesting little work on falconry, with woodcuts in the text. Probably the sixth edition.

GIORNALE DI ANATOMIA, FISIOLOGIA, E PATOLOGIA DEGLI ANIMALI. 1869–91. *Pisa.*

GIORNALE DI SCIENZE NATURALI ED ECONOMICHE. 1865–*date.* *Palermo.*

GIORNALE DI SCIENZE NATURALI PER LE PROVINCIE VENETE. 1867–*date*? *Treviso.*

GIOVIO, PAOLO (*Bishop of Nocera*) [1483–1552].

1524. Pavli Iovii novocomensis Med. de Romanis Piscibus Libellus, etc. *folio.*

The rare first edition of a very early treatise on Roman ichthyology. Not in the *Cat. Br. Mus.* (*Nat. Hist.*).

1560. Libro de pesci romani, tradotto in volgare da Carlo Zancaruolo. *4to. pp. 198.* *Venetia.*

This is the first Italian edition of an important work on fishes.

GIRALDUS DE BARRI.

?1587. The topography of Ireland; its miracles and wonders. By Silvester Giraldus Cambrensis.

A rarissima in zoological literature, appearing separately or as part of *Holinshed's Chronicles*, A.D. 1587.

GIRARD, CHARLES FRÉDÉRIC [1822–95]. *See* UNITED STATES. VOYAGE. WILKES EXPEDITION, 1845–76.

1852. Bibliographia Americana historico-naturalis . . . for 1851. *8vo. pp. 4+66.* (Wanting.) *Washington.*

This restricted but valuable work of reference by a well-known French-American writer—one of our chief authorities on herpetology and ichthyology—has become a very rare literary item.

1852. *See* BAIRD, S. F. and GIRARD, C. F., 1852.

1853. *See* UNITED STATES, 1853.

1855–9. *See* UNITED STATES. PACIFIC RD. SURVEY.

GIRAUD, JACOB P. [1811–70].

1841. A description of 16 new Species of North American Birds, etc. *folio.* (Wanting.) *N.Y.*

1844. The birds of Long Island. *8vo. pp. xxi+397. 1 pl. index.* *New York.*

GIRAUD, PIERRE.

1908. Facteurs dont dependent la masse, la forme et la composition chimique quantitative de l'encéphale chez les oiseaux. *8vo. pp. (4)+68+(1). 1 pl. (diagr.). 11 tab.* *Epinal.*

Ratio of the weight of the brain in birds to that of the body (Paris University Thesis).

GIRDWOOD, GEORGE.

?1905. Wild birds at home. Sixty photographs from life, by Charles Kirk, of British birds and their nests. [Series 1.] *32mo. pp. 76. 60 pl.* *New York.*

(**?1906.**) **n.d.** Wild birds at home. Second Series. Sixty photographs from life, by Charles Kirk, of British birds and their nests. *32mo. pp. 76. 60 pl.* *New York.*

This forms volume No. 5 of Dodge's (Gowan's) Nature Books and is a companion volume to No. 1 of the same series (q.v.) with further illustrations of wild birds, and notes on the same by George Girdwood.

1907. Wild birds at home, photographed from life by Charles Kirk. *32mo. pp. 76. 60 pl.* *London.*

1911. Wild birds at home. Sixty photographs from life, by Charles Kirk, of British birds and their nests. *32mo. pp. 76. 60 pl.* *London.*

The second edition forming volume 19 of 'Gowan's Nature Books'

1911. Wild birds at home. Fifth series. Sixty photographs from life, by Arthur Brook, of British birds and their nests. *32mo. pp. 72+(3). 60 pl. 2 indexes.* *London.*

1921. Wild birds at home. Sixty photographs from life, by Charles Kirk, of British birds and their nests. *32mo. pp. 76+(2). 60 pl. 2 indexes.* *London.*

This edition differs from the original of 1905, in having an index to the birds represented in series No. 1, otherwise the text and illustrations are the same.

GIRTANNER, A.

1868. Beobachtungen über Fortpflanzung und Entwicklung des Alpen-Mauerläufers (Tichodroma phoenicoptera). *8vo. pp. 52. 1 pl. (col.).* *St. Gallen.*

Describes the rarely seen nest and nestling of the Wall-Creeper of the Alps.

1870. Die Ausstellung lebender Schweizerischer Vögel. *8vo. pp. (2)+54. 1 diagr. (fold.)* *St. Gallen.*

1870. Beitrag zur Naturgeschichte des Bartgeiers der Centralalpenkette (Gypaëtos alpinus. Alpen-Bartgeier). *8vo. pp. 100.* *St. Gallen.*

Natural history of the great and rare Alpine Bearded Vulture, based upon museum and historical records, specimens in captivity, and correspondence.

GISTEL, JOHANNES VON NEPOMUK FRANZ XAVER [1809–?73].

1850. Handbuch der Naturgeschichte aller drei Reiche, für Lehrer und Lernende, für Schule und Haus. *8vo. pp. 2+1,037. illust. pl.* *Stuttgart.*

The library copy was hand-colored by Anton Reichenow, and is from his collection. The birds are treated on pp. 275–317, colored plates 7–14. The author is also known as *Gistel-Tilesius.*

GIZEH, EGYPT. Zoological Gardens.
1891–*date*. Publications.
1899–1911. Report.

GLADSTONE, Hugh Steuart [1877–].
1910. The birds of Dumfriesshire. *8vo. pp. xcix+482. front. 23 pl. 1 map (col. fold.). T. of c. bibliogr. index.* *London.*
218 Solway species are included in this list; 39 doubtful.

1917. Handbook to Lord Lilford's coloured figures of the birds of the British Islands. *8vo. pp. 69.* *London.*
This useful work should be regarded as a supplement to Lilford's *Coloured Figures*, the present copy being uniformly bound and shelved with that fine series of atlases.

1918. The photographic analysis of a feather. *4to. pp. 13. 9 pl. (28 figs.).* *London.*
The author has expanded the paper *A note on the structure of the Feather* (April 1918, *Ibis*) and republished it with six additional photographs. He finds that the morphology of a feather is the same whether it belongs to a Golden Eagle or a Sparrow.

1919. Birds and the war. *12mo. pp. xviii+169. front. 16 pl. T. of c.* *London.*
The War seems to have had little or no effect upon migration; air raids terrified some birds but not others; in some engagements 1,000 homing pigeons were used by the British to carry messages.

1919. *See* JARDINE, WILLIAM.

1923. Notes on the Birds of Dumfriesshire. A continuation of his *Birds of Dumfriesshire. 8vo. pp. 115. 4 illust. index.* No. 23 of 250 copies initialed (and presented to the E.S.W. Library) by the Author. *Dumfries.*
The book is based on a Presidential Address given in 1921, to which much new matter on the subject has since been added.

GLANVILLE, Bartholomew de. *See* BARTHOLOMAEUS ANGLICUS.

GLASGOW. *See* NATURAL HISTORY SOCIETY OF GLASGOW.

GLASGOW NATURALIST. 1909–21. *Glasgow.*

GLASGOW. Society of field naturalists.
1876. A contribution towards a complete list of the fauna and flora of Clydesdale and the west of Scotland. *pp. 148.* (British association for the advancement of science. Notes on the fauna and flora of the west of Scotland, 1876.) *Glasgow.*

GLEANINGS FROM NATURE. By J. Warren Jacobs, Waynesburg, Pa. 1898. *8vo.*
No. 1, 1898, Oological abnormalities. *pp. 36*; No. 2, 1903; No. 3, 1904; No. 4, 1905; No. 5 (1909). (All issued.)

GLEANINGS IN SCIENCE. *Calcutta.*
1829–31. Forerunner of Journal of Asiatic Society of Bengal.

GLEGG, William E.
1929. A history of the birds of Essex. *8vo. pp. xxxv+342. front. 19 pl. map. T. of c. bibliogr. index.* *London.*
A valuable addition to the data given on the same subject by Miller Christy.

GLOGER, Constantin W. Lambert.
1833. Das Abändern der Vögel durch Einfluss des Klima's. *8vo. pp. 32+159.* *Breslau.*
One of the best (early) studies of the influence of climate on bird life.

1833. Schlesiens Wirbelthier-Fauna. Ein systematischer Ueberblick der in dieser Provinz vorkommenden Säugthiere, Vögel, Amphibien und Fische. *8vo. pp. 14+78.* *Breslau.*
An important, systematic work of reference.

1834. Vollständiges Handbuch der Naturgeschichte der Vögel Europa's mit besonderer Rücksicht auf Deutschland. *8vo. pp. lvi+600. index.* Pt. 1. Deutsche Landvögel. (All pub.). *Breslau.*
This classic work of reference (see Newton's *Dictionary*, p. 57) was issued in six parts, and was never completed, the above section treating of Land Birds only. A few new names appear in its pages.

GMELIN, Carl Christian [1762–1837].
1809. Gemeinnützige systematische Naturgeschichte der Vögel. *2 Thl. 87 col. pl.* *Mannheim.*

GMELIN, Johann Friedrich [1748–1804].
1788–93. C. a Linné . . . Systema Naturae . . . editio decima tertia . . . Cura J. F. Gmelin. *3 vols. 8vo.* *See also* LINNAEUS.
This is a short title of the indispensable thirteenth edition of the famous *Systema Naturae*, Linnaeus, another printing of which was issued in 1789–96.

GMELIN, Samuel Gottlieb [1743–4].
1774–84. Reise durch Russland zur Untersuchung der drey Reiche. *4 pts. 4to.* *St. Petersbourg.*
Part IV was edited, with a sketch of the author's life, by P. S. Pallas.

GÖBEL, G. F.
1905. (The) eggs of Russian geese. *See* ALPHÉRAKY, SERGIUS. The geese of Europe and Asia, &c. Appendix I.

GODARD, André.
1916. Les réfections françaises. Les jardins-volières; criminelle destruction, repeuplement possible, irremplaçables services des oiseaux. *12mo. pp. xxii+381. T. of c.* *Paris.*
Discusses the destruction and rehabilitation of useful birds in France, their future protection, and the technique of their culture.

1917. (Les) oiseaux nécessaires à l'agriculture, à la sylviculture, à la viticulture, à l'arboriculture et à l'hygiène publique. 2e éd. *12mo. pp. 119. 18 text-figs. T. of c.* *Paris.*

GODDARD, T. Russell.
[**1929**]. History of the Natural history society of Northumberland, Durham and Newcastle upon Tyne, 1829–1929. *8vo. pp. xvi+195. front. (portr.). 11 pl. T. of c. append.* *Newcastle-upon-Tyne.*

GODDIJN, W. A. *See* LOTSY, J. P., 1928.

GODMAN, Frederick Du Cane [1834–1919].
1870. Natural history of the Azores, or Western Islands. *8vo. pp. v+358. T. of c. index.* *London.*

**** and **SALVIN,** O.
1879–1915. Biologia Centrali-Americana; or, contributions to the knowledge of the Fauna and Flora of Mexico and Central America. *57 vols. 4to. col. pl.* *London.*
A monumental treatise in which the zoology is well described and sumptuously pictured in color. It was issued in 240 parts and divided into two sections. In the zoology section E. R. Alston contributed the article on mammalia, 1879–82, with addenda by P. L. Sclater and O. Thomas, pp. 20+220, 22 col. pl.; the aves (1879–1904) were treated in vols. I–III text and vol. IV, 84 col. pl., by the authors, assisted by R. Bowdler Sharpe and W. R. Ogilvie-Grant; reptiles and batrachia by A. Günther (1885–1902), pp. 20+326, 76 col. pl.; pisces (1906–8) by C. T. Regan, pp. 32+203, 26 pl. and 2 maps. *See also* SALVIN, OSBERT.

1882. Lichtenstein's Catalogus Rerum Naturalium rarissimarum. Edited by F. D. Godman. *8vo.*

This is a republication by the Willughby Society of one of the scarcest of the famous Lichtenstein catalogues.

[**1882–6**]. VI. Notes on birds from British Guiana. *See also* SALVIN, O. and GODMAN, F. D.

The Library has also a second copy with corrections by P. L. Sclater.

1907–10. A monograph of the petrels (order *Tubinares*); with hand-coloured plates by J. G. Keulemans. *2 vols. 4to.* Vol. I, *pp. 232. front. (col.). 66 pl. (col.).* Vol. II, *pp. 233–381+(3)+lv. 39 pl. (col.). index.* *London.*

Published in five parts, the covers of which are bound in the present volumes, the dates being pt. I, Dec. 1907, pt. II, March 1908, pt. III, Sept. 1908, pt. IV, April 1909, pt. V, May 1910. According to the reviewer in the *Auk*, vol. 27, July 1910, pp. 350–1, Salvin originated the idea of publishing the present work and had some of the plates prepared at the time of his death in 1898. Godman then took over the project and with the acknowledged assistance of R. B. Sharpe, published the work as it now exists. Pp. xv–xxi contain an essay by Pycraft 'On the Systematic Position of the Petrels'. The number of species recognized is 124, of which 104 are figured. The present copy is No. 185 of the edition which was limited to 225 copies.

******** and **SALVIN,** O.

1915. Biologia centrali-americana. Zoology, botany, and archaeology. *4to. pp. viii+149. 2 pl. (portr.). 8 maps (col.). T. of c.* Introductory volume. *London.*

A general introductory volume to the *Biologia Centrali-Americana*, part of which is of interest ornithologically, more especially, pp. 57–58, wherein is summarized the contents of vols. I–IV on the Aves written by Salvin, who describes 1,413 species in vols. I–III, the remaining volume containing the whole of the plates (84) as well as a complete list of the 149 species figured. This part of the work was completed in 1904, Salvin's long-continued ill health, and sudden death in 1898, having retarded the conclusion of vol. III, which was subsequently finished with the assistance of Bowdler Sharpe and Ogilvie-Grant.

GODMAN, JOHN DAVIDSON [1794–1830].

1826–8. American Natural History. *3 vols. 8vo.* (All pub.) Part I. Mastology. 1st ed. (Also in *Bib. Osler.*) Vol. III has an appendix entitled 'General synopsis of Mammalia inhabiting North America', by Chas. L. Bonaparte. *Phila.*

An important and early semi-popular treatise.

1836. American natural history. To which is added his last work, The Rambles of a Naturalist. 2nd ed. *2 vols. 8vo.* Vol. I, *pp. xxvi+345. 27 pl. (woodcuts).* Vol. II, *pp. 337. 22 pl. 4 figs. append. index.* *Phila.*

Reference to birds in this edition will be found in the biographical sketch at the end of vol. II, pp. 291–337. Here the woodpecker is referred to, with a discussion on the economic value of the Crow. An account is also given of some large 'crow roosts', and methods adopted for destroying the birds. The first edition of the work—in 3 vols.—was issued in 1826–8, without, however, the portion *The Rambles of a Naturalist.*

1842. American natural history. To which is added his last work, The rambles of a naturalist. 3rd ed. *2 vols. 8vo.* Vol. I, *pp. xxvi+345. 27 pl. (woodcuts). 1 fig.* Vol. II, *pp. 337. 22 pl. 4 figs. append. index.* *Philadelphia.*

Apparently there is no difference whatever between this and the edition of 1836.

GODWIN-AUSTEN, HENRY HAVERSHAM [1834–?1905].

1862–4. (The) birds of India. *See* JERDON, T. C.

1874–7. Opuscula ornithologica. Lists of birds principally from the Naga Hills and Munipur, including Others from the Khasi, Garo, and Tipperah Hills. *8vo. pp. 30+23. 8 col. pl.*

The first two papers are illustrated with colored plates drawn by the author, which, bound with the other papers, form the present volume, a presentation from the author to Canon Tristram.

GOELDI, EMIL AUGUST [1859–1917].

1894–1900. As aves do Brasil. *2 pts. 12mo. pp. 664.* *Rio de Janeiro.*

A rather mixed but important account of the birds of Brazil indigenous to and visiting Brazil; observations extending over six years. The work was issued in two parts. In the present copy there are title-pages and indexes for both parts, the last page (311) of part I being duplicated and one of them bound in part II.

1900–6. Museu Goeldi (Museu Paraense) de historia natural e ethnographia. Album de aves amazonicas. *2 vols. 4to. pp. (18)+(12). 48 pl. (col.). 3 indexes.* *Rio de Janeiro.*

A collection of 48 plates lithographed in colors by Ernesto Lohse representing Goeldi's *Aves do Brasil*, 1894–1900, reference being made to that work on the plates and in the index. Fascicle I is dated 1900; II, 1902; III, 1905–6, the covers to these being bound in at the end of the present volume.

1902. Against the destruction of white herons and red ibises on the lower Amazon, especially on the island of Marajó. Two memorials. *pp. 20.* *Para.*

Spirited appeals against the wholesale slaughter of the above birds in the breeding season for the sake of their plumes for millinery purposes. Translated from the Portuguese originals by Wm. H. Clifford.

GOETHE, JOHANN WOLFGANG [1749–1832].

(1905–7). Schriften zur Naturwissenschaft. Anmerkung von Max Morris. *2 Tle. 8vo.* *Stuttgart.*

The above forms Bde. 39–40 of *Goethes Sämtliche Werke, Jubiläums-Ausgabe*, von der Hellen, and is a careful selection from the 14 vols. of scientific writings in the Weimar edition.

GOEZE, JOHANN AUGUST EPHRAIM [1731–93] and **DONNDORFF,** J. A.

1791–1803. Europäische Fauna, oder Naturgeschichte der Europäischen Thiere, etc. *9 Bd. (in 10). 8vo. illust.* *Leipzig.*

One of the rarest and earliest systematic treatises on European fauna.

GOLDENBERG, CARL FRIEDRICH [1798–1881].

1873–7. Fauna Saraepontana fossilis. Die fossilen Thiere aus der Steinkohlenformation von Saarbrücken. *2 pts. 4to. illust.* *Saarbrücken.*

GOLDFUSS, GEORG AUGUST [1782–1848].

1862–3. Petrefacta Germaniae. 2nd ed. *3 vols. in 1. 4to.* *Leipzig.*

In Latin and German. The first edition was issued, also in 3 vols., 1826–44.

1866. Petrefacta Germaniae. Repertorium zu Goldfuss' Petrefakten Deutschlands. *4to. pp. 4+122.* With this is an atlas, *n.d.*, with 201 plates. *See also* GIEBEL, C. G. A.

1911. (Smithsonian miscellaneous collections, volume 56, number 27.) A new kingfisher from Panama. *8vo. pp. (2)+2.* Author's reprint. *Washington.*

The new species is Ceryle Americana Isthmica, type from Rio Indio (near Gatum), Canal Zone, Panama.

GOLDMAN, EDWARD ALPHONSO [1873–].

1911. Revision of the spiny pocket mice (genera Heteromys and Liomys). *Washington.*

1918. The rice rats of North America (Genus Oryzomys). North Amer. Fauna No. 43, Bur. Biol. Surv., U.S. Dept. Agric. *pp. 100, 6 pls.* *Washington.*

GOLDSCHMIDT, RICHARD BENEDICT [1878–].
1927. Die Lehre von der Vererbung von Richard Goldschmidt. *50 cuts.* *Berlin.*

GOLDSMID, FREDERIC JOHN [1818–] and **others.**
1876. Eastern Persia, an account . . . Persian Boundary Commission, 1870–72. *2 vols. 8vo. illust.* *London.*
The geology and zoology of these expeditions is discussed and fairly well illustrated by W. T. Blanford.

GOLDSMITH, OLIVER [1728–74].
1805. A history of the earth and animated nature. New ed., with corrections and additions by W. Turton. *6 vols. 8vo. pl.* *London.*
The *editio princeps* of this celebrated but not original or reliable natural history was issued in 1774. Many editions were published with notes, corrections, and additions, most of which are in the McGill libraries.

1816. A history of the earth, and animated nature. W. Turton. A new ed., in 6 vols. *8vo. pp. xxxvi+3,552. 109 pl. T. of c. index.* *London.*

1819. A history of the earth and animated nature; with copious notes and additions by G. F. Shaw. *4to. pp. xii+812. 75 pl. (73 col.). addend. index.* *London.*

1831. A history of the earth and animated nature. *pp. xvi+718. front. (portr.). 34 pl. T. of c. index.* *Edinburgh.*

1838. History of British and foreign birds. *18mo. pp. [2]+400. col. front. 46 col. pl.* The col. title-page reads 'Goldsmith's History of British and Foreign Birds. With numerous original notes' [by an anon. commentator]. *London.*
This small (and rare) little book by a famous writer, ignorant of scientific zoology, is well illustrated with hand-colored plates. The text is mostly from the author's *Animated Nature.* The present copy was originally in the Mullens Library.

1840–3. A History of the Earth and Animated Nature. (Another ed.) And an Appendix . . . by Captain Thomas Brown. *4 vols. 12mo. illust.* *Edinburgh.*
This printing of a famous popular but not always accurate work is made useful from a scientific viewpoint by the appended notes, explanations of technical terms, with an outline of the Cuvier and other systems by a trained naturalist.

GOLF CLUBS AS BIRD SANCTUARIES.
1930. Pamphlet issued by the National Association of Audubon Societies.

GOOD, JOHN MASON [1764–1827] and **others.**
1813. Pantologia; a new cyclopaedia, etc. *12 vols. 8vo.* Vols. 1–12 (not paged). *373 pl. (185 col., 20 birds). index (to plates).* *London.*
A general scientific dictionary of moderate extent and popular language by several writers. Descriptions of birds naturally occur in alphabetical order, there being 20 colored plates representing about 50 species.

1819. Pantologia, etc. *12 vols.* Vols. I–XII (not paged). *373 pl. (185 col., 20 birds). index (to plates).* *London.*

1821. The gallery of nature and art. *See* POLEHAMPTON, EDWARD T. W., 1821.

1828. The book of nature. 2nd ed. *3 vols. 8vo.* Vol. I, *pp. xii+443. T. of c.* Vol. II, *pp. (2)+441.* Vol. III, *pp. (2)+425.* *London.*
The first edition of this work appeared in 1826.

GOODE, GEORGE BROWN [1851–96].
1879. Game fishes of the United States. *folio. pp. 46. 20 pl. map.* *New York.*
The drawings to illustrate this well-known work are by S. A. Kilbourne and in the present copy are in a portfolio.

1884. *See* JONES, J. M. and GOODE, G. B., Bermuda.

1884–7. *See* UNITED STATES. BUREAU OF FISHERIES.

1888. American fishes; a popular treatise upon the game and food fishes of North America, with especial reference to habits and methods of capture. *8vo. pp. 16+496.* *London and New York.*

******** and **BEAN,** T. H.
1895. Oceanic Ichthyology, a treatise on the deep-sea and pelagic Fishes of the World, etc. *2 vols. 4to. pp. 35+26+553. 1 pl. figs. in text. atlas, 4to. pp. 23+26. 123 pl.* *Washington.*
Occasionally found as a separate work; originally this fine treatise was issued as one of the *Smithsonian Contributions to Knowledge* (vols. XXX and XXXI). It is one of the chief authorities on oceanic fishes.

1896. (The) published writings of P. L. Sclater, 1844–96. *See* SCLATER, P. L.

1903. American fishes. New ed. . . . extended by Theodore Gill. *8vo. pp. 68+562. illust. pl. portr.* *Boston.*
An important treatise written by two prominent ichthyologists.

GOODRICH, EDWIN S.
1930. Studies on the Structure and Development of Vertebrates. *8vo. pp. 30+837. 754 figs. in text. index and tables.* *London.*
An up-to-date systematic account of vertebrate structure and development of signal importance to students.

GOODRICH, SAMUEL GRISWOLD [1793–1860].
1861. Illustrated natural history of the animal kingdom. *2 vols. 4to. 1,500 figs.* Vol. I, *pp. xv+(1)+680.* Vol. II, *pp. viii+680. index.* *New York.*
390 illustrations of birds, many of which are from Yarrell's *British Birds.*

1875. Johnson's natural history . . . contributions from E. L. Youmans, J. H. Seelye and Sanborn Tenney. *2 vols. 4to. pp. 1,500. 1,550 illust.* *New York.*
A popular work of little scientific importance.

GOODRICH-FREER, ADELA M. [1865–].
1924. Arabs in Tent and Town. An Intimate Account of the Family Life of the Arabs of Syria, with a Description of the Animals, Birds, etc. *8vo. pp. 325. illust.* *N.Y.*
A valuable work, consisting of first-hand observations made over a period of 24 years. About 10 chapters relate to natural history.

GORDON, *Mrs.* EVELYN AUDREY (born) PEASE.
1927. Days with the golden eagle. *See* GORDON, S. P.

GORDON, SETON PAUL [1886–].
1907. Birds of the loch and mountain. *8vo. pp. 16+181. illust.* *London.*

1912. The charm of the hills. *8vo. pp. xiv+248. front. 64 pl. T. of c. index.* *London.*

1915. Hill birds of Scotland. *8vo. pp. xii+300. front. 24 pl. T. of c. index.* *London.*

1921. Wanderings of a naturalist. *8vo. pp. 14+219. 67 pl. index.* *London and New York.*

1923. Hebridean Memories.

1926. The immortal isles. *8vo. pp. x+227. 5 pl. (col.). 32 pl. (12 birds). 24 figs. in text. London.*
An account of the Outer Hebrides, with their fauna.

1927. Days with the golden eagle. Photographs by the author and his wife. *4to. pp. xv+176. 19 pl. (4 col.) num. head-pieces. T. of c. London.*
Interesting, well-illustrated treatise.

GORDON, W. J.
?1892. Our country's birds and how to know them. *8vo. pp. 152. 33 col. pl. 38 text-cuts.*
This 'Guide to all the birds of Great Britain, with an illustration in colour of every species' forms a useful compend for the identification not only of the British species but of most of their eggs. The colored plates are indications rather than true representations of the avian plumage.

GORE, R. T.
1825. A manual of the elements of natural history. *See* BLUMENBACH, J. F.

GÖRLITZ. Naturforschende Gesellschaft.
1827–1930. Abhandlungen.

GORUS, JOANNES DE SANCTO GEMINIANO. *See* JOHANNES DE SANCTO GEMINIANO.

GOSCH, CHRISTIAN CARL AUGUST [1832–1913].
1870–8. Udsigt over Danmarks zoologiske literatur. *3 vols. 8vo. Kjøbenhavn.*

GOSS, NATHANIEL S.
1883. A catalogue of the birds of Kansas. Published under the direction of the executive council. *8vo. pp. iv+29. errata. Topeka.*
An annotated list of 320 species.

1886. A revised catalogue of the birds of Kansas. With descriptive notes of the nests and eggs. *8vo. pp. iv+76. index. Topeka.*
The author's *A catalogue of the Birds of Kansas*, 1883, revised and enlarged, embracing 335 species.

1891. History of the birds of Kansas. Illustrating 529 birds. *8vo. pp. 692. 35 pl. 1 diagr. addend. glossary. 3 indexes. Topeka.*

GOSSARD, H. A. and **HARRY,** S. G.
[**1912**]. Some Ohio birds. *8vo. pp. 78. front. (col.). 19 figs. bibliogr. index. Wooster, Ohio.*
An extension of *The Birds of Wayne County*, by H. C. Oberholser, published by the Ohio Agricultural Experiment Station in 1896, 100 species being described.

GOSSE, PHILIP. *See* FITZGERALD, E. A., 1897.

GOSSE, PHILIP HENRY [1810–88].
1840. The Canadian naturalist. A series of conversations on the natural history of Lower Canada. *8vo. pp. xii+372. 47 figs. 2 indexes. London.*

[**1844**]. An introduction to zoology. *2 vols. 8vo.* Vol. I, *pp. xxi+(3)+383. 73 figs.* Vol. II, *pp. iv+436. 58 figs. 2 indexes. London.*

1846. Volume of original MSS. and cuttings. *4to.*

1847. The birds of Jamaica. *8vo. pp. x+447. index. London.*
This account was compiled largely from notes by Richard Hill, a resident ornithologist. A number of new species are described by the author, who in 1849 published *Illustrations of the Birds of Jamaica.*

1848–54. Natural history. *5 vols. illust. London.*
CONTENTS: [vol. 1]. Mammalia. [2]. Birds. [3]. Reptiles. [4]. Fishes. [5]. Mollusca.
The volumes composing this useful and important system are often issued separately and they actually form distinct treatises on the whole range of vertebrate zoology.

1849. Illustrations of the birds of Jamaica. *4to. pp. 4. 52 col. pl. London.*
A series of 52 colored plates intended to illustrate the author's *Birds of Jamaica*, 1847, to which page references are given on the plates. It was originally proposed to give a figure of each species, but this plan was subsequently modified by omitting such species as had been well figured elsewhere. The beautiful original drawings are in the Blacker Library.

1849. Natural history. Birds. *16mo. pp. vii+327. 78 figs. T. of c. index. London.*

1850. Natural history. Reptiles. *8vo. pp. 4+296. 80 illust. London.*

1851. A naturalist's sojourn in Jamaica. *8vo. pp. xxiv+508. front. (col.). 7 pl. (col.). T. of c. append. index. London.*
An interesting Journal of the author's sojourn in the island from his own personal notes and those of Richard Hill. Twenty-four new species of Mammalia, Reptiles, and Fishes are described.

1851. A text-book of zoology, for schools. *8vo. pp. (2)+450. 399 figs. 2 indexes. London.*

1851. Natural History. Fishes. *8vo. pp. 8+372. text illust. London.*

1853. Popular British ornithology. 2nd ed. *12mo. pp. 8+320. 20 col. pl. London.*
A well-written, popular little book, with a few excellent diagnostic plates.

1853. A Naturalist's rambles on the Devonshire Coast. *8vo. pp. xvi+451. 28 pl. (col.). London.*

1854. The Aquarium: an unveiling of the wonders of the deep sea. *8vo. col. pl. London.*
The first edition (rare) of an informing, semi-popular work.

1855–6. (A) Manual of Marine Zoology for the British Isles. *2 vols. 8vo. illust. London.*

1857. Life in its lower, intermediate, and higher forms. *12mo. pp. viii+363. front. 5 pl. 23 figs. T. of c. index. London.*

1859. Letters from Alabama (U.S.), chiefly relating to Natural History. *12mo. pp. xii+306. text-figs. T. of c. London.*
This rather rare little book contains many interesting accounts of birds seen during a residence of eight months in Alabama. The following, for example: 'I had the pleasure of seeing a flock of Parrots (*Psittacus Carolinensis*). There were eighty or a hundred in one compact flock . . . that looked like an immense shawl of green satin on which an irregular pattern was worked in scarlet, gold and azure. The sun's rays were brilliantly reflected from the gorgeous surface, which rapidly sped past, like a splendid vision.' The last phrase may likewise and appropriately be quoted to describe the untimely fate of the whole species.

1860. The Romance of Natural History, both series. *2 vols. 8vo. 21 pl. by Wolf and others. London.*
The first edition of a well-written and reliable book that had many subsequent printings.

1862–3. The romance of natural history. 6th ed. *2 vols. 8vo.* Vol. I, *pp. xiv+(2)+372. front. 11 pl. T. of c. index.* Vol. II, *pp. xi+(1)+393. front. 9 pl. T. of c. append. index. London.*

1864. The romance of natural history. *8vo. pp. xiv+(2)+372. front. 11 pl. T. of c. index. Boston.*
An American issue of the first series.

[**GOSSE**, P. H. (*contd.*)]

1865. A year at the Shore. *8vo. pp. xii+330. 36 col. pl.* *London.*

1867–72. [Manuscript letter book.] Autograph letters from other authors, Chas. Kingsley *et al.*

1869. The romance of natural history. First series. 8th ed. *8vo. pp. xiv+372. front. 11 pl. T. of c. index.* *London.*

1870. The romance of natural history. Vol. I. 8th ed. [1st series]. Vol. II. 3rd ed. [2nd series]. *2 vols. 8vo.* Vol. I, *pp. xiv+(2)+344. front. 11 pl. T. of c. index.* Vol. II, *pp. (4)+363. front. 9 pl. append. index.* *London.*

1875. The romance of natural history. Vol. I. 10th ed. [1st series]. Vol. II. 5th ed. [2nd series]. *2 vols. 8vo.* Vol. I, *pp. xiv+344. front. 11 pl. T. of c. index.* Vol. II, *pp. (4)+363. front. 9 pl. T. of c. append. index.* *London.*

1879. Land and sea. *8vo. pp. xii+425. 15 pl. T. of c. 1 append. index.* *London.*

1902. Romance of natural history. *8vo. pp. 12+348. front. T. of c. index.* *New York.*

An American issue of the first series of 1860, but without the illustrations.

GÖTTINGEN. *See* GESELLSCHAFT DER WISSENSCHAFTEN.

GÖTZ, GEORG FRIEDRICH [1750–1813].

1782. Naturgeschichte einiger Vögel. *8vo. pp. (24)+119+(1). 6 pl. (col.). 5 figs.* *Hanau.*

Descriptions of rare birds, partly from life, with noteworthy hand-colored copper plates.

GOUAN, ANTOINE [1733–1821].

1770. Histoire des Poissons, etc. *4to. pp. xviii+24+228 ff. 4 pl.* Latin and French on opposite pages. *Strasbourg.*

GOULD, AUGUSTUS ADDISON [1805–66] and **AGASSIZ,** L. J. R.

1848. Principles of zoölogy . . . Pt. 1. Comparative physiology. *8vo.* *See* AGASSIZ, L. J. R.

This well-known text-book passed through several editions and at least one translation.

1851. The naturalist's library; containing scientific and popular descriptions of man, quadrupeds, birds, fishes, reptiles and insects. *8vo. pp. xxi+880. 400 figs. glossary. index.* *Boston.*

A compilation from many works, arranged according to the classification of Stark, which is based upon that of Cuvier.

******** and **AGASSIZ,** L. J. R.

1851. Outlines of comparative physiology. Edited by Thomas Wright. *8vo. pp. 24+442. illust. pl.* *London.*

1854. The Naturalist's Library, etc. *pp. 900. 400 figs.* *Boston.*

1855. Principles of Zoology. Revised ed. *8vo. pp. 442. illust. pl.* (Bohn's Scientific Library.) *London.*

Of the same date is the German edition with the title *Allgemeine Zoologie, &c.*

1856. Principles of Zoology. Revised ed. *See* AGASSIZ, L. J. R.

1856. The naturalist's library, containing descriptions of man, quadrupeds, birds, fishes, reptiles and insects. *8vo. pp. 900. 400 figs.* *Boston.*

Another American edition.

1857. The naturalist's library. *8vo. pp. xxi+880. 400 figs. glossary. index.* *Boston.*

Still another American printing.

GOULD, JOHN [1804–81] and **VIGORS,** N. A.

1832. A century of birds from the Himalaya Mountains. *folio. pp. (12)+(144). 80 pl. (col.). T. of c.* *London.*

The present copy has the plates uncolored. It is probable that that publication was commenced in 1831 or earlier. Some of the plates were exhibited to the Zoological Society of London on Nov. 23, 1830. They were executed by Mrs. (E.) Gould from Gould's sketches, and the scientific descriptions, with most, if not all, of the remaining letterpress, were written by Vigors. The 80 hand-colored plates contain 102 figures of birds, of which two represent sexes figured twice; the remaining 100 figures forming the basis for the title of 'Century'. This was the first of Gould's famous folios.

1832–6. *See* ORIGINAL DRAWINGS. GOULD, JOHN.

1832–7. The birds of Europe. *5 vols. folio.* Vol. I, *pp. xii+102. 50 pl. (col.).* Vol. II, *pp. (2)+200. 99 pl. (col.).* Vol. III, *pp. (2)+188. 93 pl. (col.).* Vol. IV, *pp. (2)+208. 103 pl. (col.).* Vol. V, *pp. (2)+208. 103 pl. (col.).* *London.*

The copy in hand is in the 22 original parts with covers. The above collation has been taken from part 22 containing title-pages and indexes for all the volumes, preface and introduction, &c. The 448 magnificent plates were drawn by Gould and E. Lear, and hand-colored by Mrs. Gould.

1834. A monograph of the Ramphastidae, or family of toucans. *folio. pp. (94). 34 pl. (33 col.). addenda.* *London.*

Published in three parts, a very full account of which with dates will be found in the *Ayer Catalogue* by Zimmer, pp. 252–3. In 1854, Gould issued a new edition, and in 1855 published a 'Supplement to the First Edition', giving the text and plates of the species included in the revised, but not the original, edition.

1837–8. [The birds of Australia and the adjacent islands.] *folio. 20 col. pl.* *London.*

No t.-p. Issued in two parts. These were afterwards withdrawn, and their contents incorporated in *The Birds of Australia*, 7 vols., 1840–8. The present copy is in the original wrappers. The above title is the rarest of the Gould items.

1837–8. Icones avium, or Figures and descriptions of new and interesting species of birds from various parts of the globe. *folio. 18 ll. 18 col. pl. (1 fold.).* No t.-p. Issued in two parts.

This rare publication, illustrated by drawings made by J. and E. Gould, is a fundamental work in which several new species of birds are first described. A full account of the contents is given by Zimmer (*Ayer Cat.*, pp. 668–9).

1837–8. A synopsis of the birds of Australia, and the adjacent islands. *4 pts. in 1 vol. 4to. 73 col. pl.* Each plate accompanied by leaf with descriptive letterpress. Pt. I, *19 col. pl.* Issued Jan. 1837. Pt. II, *18 col. pl.* Jan. 1837. Pt. III, *18 col. pl.* April 1838. Pt. IV, *18 col. pl.* April 1838. *London.*

Descriptive list of Australian birds many of which (part IV) were genera and species new to science. Eight pages of the last part are 'descriptions of new species'. The colored plates, the bases, of the text, are beautifully drawn.

1839–43. *See* ZOOLOGY OF THE VOYAGE OF H.M.S. BEAGLE, 1839–43.

ca. **1840.** Manuscript in Gould's Handwriting, containing Descriptions of 587 Birds, mostly one to a page. *4to.* Lettered 'Boy's Birds'. Loosely inserted is an older MS. on 12 ll. of paper, headed 'Ornithological List' and containing Descriptions of 87 Birds.

An important and unique addition to the Blacker collection.

1840–8. (The) birds of Australia. *7 vols. folio.* Vol. I, *36 pl. (col.). 3 figs. T. of c. index.* Vol. II, *pp. (4)+(208). 104 pl. (col.). T. of c.* Vol. III, *pp. (4)+(194). 97 pl. (col.). T. of c.* Vol. IV, *pp. (4)+(208). 104 pl. (col.). T. of c.* Vol. V, *pp. (4)+(184). 92 pl. (col.). T. of c.* Vol. VI, *pp. (4)+(164). 82 pl. (col.).* Vol. VII, *pp. (4)+(170). 85 pl. (col.). T. of c.* *London.*

A truly magnificent treatise, issued in 36 parts. This work forms a thorough treatise on the birds of the Australian region illustrated with 600 hand-colored plates from drawings of the author and Mrs. E. Gould. Three years later the author commenced a supplement which was completed in 1869.

1841–2. A monograph of the *Macropodidæ*, or family of kangaroos. Pts. 1–2. *2 vols. 30 col. pl with letterpress.* *London.*

This monograph was never completed.

1844. [Birds collected during the voyage.] *See* HINDS, R. B. The zoology of the voyage of H.M.S. Sulphur . . . during . . . 1826–42. Vol. 1.

[1844]. On the sub-family *Odontophorinæ*, or partridges of America. *8vo. pp. 60.* Original manuscript.

John Gould's original manuscript in his own handwriting of a paper on the Odontophorinae which he read at the British Association Meeting in 1844. It was never printed or published, only an abstract appearing in the British Association Report. Page 19 is unfortunately missing.

[1844]–50. A monograph of the *Odontophorinæ*, or partridges of America. *32 pl. (col.). T. of c.* *London.*

Published in 3 parts, of which pt. I appeared in 1844, pt. II in 1846, and pt. III in 1850, the first two parts with 10 plates each and the last with 12 plates. In the introduction will be found descriptions of three species which are not figured, thus bringing up the total number of known species in the group to 35, all of which are treated in the present work.

[1845]–63. Mammals of Australia. *3 vols. folio. 182 col. pl.* Each plate with descriptive letterpress. *London.*

Although not as sumptuously illustrated as some of his avian treatises the author's monographs on mammalian life, like the above, are wonderfully well done throughout.

1849–61. A monograph of the *Trochilidæ*, or family of humming-birds. *5 vols. folio.* Vol. I, *pp. (127)+84. 41 pl. (col.).* Vol. II, *pp. (2)+152. 75 pl. (col.).* Vol. III, *pp. (2)+178. 87 pl. (col.).* Vol. IV, *pp. (2)+162. 80 pl. (col.).* Vol. V, *pp. (2)+156. 77 pl. (col.).* *London.*

The most attractive of all Gould's publications, issued in 25 parts. The last part contained only the introductory matter, title-pages, and lists of contents for each of the projected volumes. This introduction was published also in 8vo form in the same year as the last part appeared, under the title *An introduction to the Trochilidae.* A supplementary volume was issued during 1880–7, completed by R. Bowdler Sharpe after Gould's death in 1881, under the title *A Monograph . . . Supplement.*

[1849]–87. A monograph of the *Trochilidæ*, or family of humming-birds. Completed after the author's death by R. Bowdler Sharpe. Supplement. *folio. pp. (8)+200. front. (col.). 57 pl. (col.).* *London.*

1850–83. The birds of Asia. Completed after the author's death by R. Bowdler Sharpe. Each plate accompanied by leaf with descriptive letterpress. *7 vols. folio.* *London.*

Published in 35 parts, of which parts I and II appeared in 1850, and pts. XXXIV and XXXV in 1883. The last three numbers and the Introduction were issued after the death of Gould in 1881. The total number of colored plates is 530, hand-colored, and mostly drawn by Gould; a few the work of J. Wolf.

[1851]–69. The birds of Australia. Supplement. *folio. pp. iv+(158). 81 pl. (col., 1 fold.). index.* *London.*

Issued in five parts, of which pt. I appeared on March 15, 1851, and pt. V on August 1, 1869, according to G. Mathews, *Birds of Australia*, Suppt. 4, pp. 48, 1925.

1854 [1852–4]. A monograph of the *Ramphastidæ*, or family of toucans. *folio. pp. 26+(106). 52 pl. (51 col.).* *London.*

A revised edition of Gould's earlier work, 1834, with new plates and discussions of various species not formerly treated.

1858–75. A monograph of the *Trogonidae*, or family of trogons. 2nd ed. *folio. pp. (4)+v–xx+(98). 47 pl. (col.).* *London.*

Published in four parts, the first of which appeared in 1858, the second in 1869, the third in June and the fourth in September 1875. The present edition is the second, the first appearing in 1838. The copy in hand is not bound but enclosed in a strong cardboard case.

1861. An introduction to the *Trochilidæ*, or family of humming-birds. *8vo. pp. iv+216. bibliogr. 2 indexes.* *London.*

This volume embraces the introductory matter of Gould's *Monograph of the Trochilidae*, 1849–61. The present copy is a presentation from the author to the Rev. William Rogers.

1862–73. The birds of Great Britain. *5 vols. folio.* Vol. I, *pp. cxl+68. 37 pl. (col.). 1 fig.* Vol. II (wanting). Vol. III, *pp. (2)+142. 76 pl. (col.).* Vol. IV, *pp. (2)+172. 90 pl. (col.).* Vol. V, *pp. (2)+174. 86 pl. (col.).* *London.*

A magnificent work (in 25 parts) with life-like portraits of the birds inhabiting the British Isles. The 367 hand-colored plates are mostly by Gould, a few by J. Wolf.

1863. The mammals of Australia. *3 vols. folio. 130 col. pl.* Each plate accompanied by leaf with descriptive letterpress. *London.*

It appears that an incomplete edition of the monograph (1845–63) has been published with 130 col. pl. instead of 182, with the above date.

1863. Introduction to the Mammals of Australia. *8vo.* *London.*

A separately printed tractate apparently unknown to collectors, taken from the larger work.

1865. Handbook to The birds of Australia. *8vo.* Vol. I, *pp. viii+636.* Vol. II, *pp. (6)+629. 3 figs. index.*

This is the text of Gould's *Birds of Australia*, 1840–8, and of the three Supplements thereto, 1851–69, with emendations and additions. He refers to it as 'a kind of handbook' to his folio work. The present copy is from the library of Professor Blasius, who has made many marginal notes and drawn, in pencil on a fly-leaf, a map of Australasia.

1873. An introduction to the birds of Great Britain. *8vo. pp. iv+135. front. (portr. inserted). 1 fig.* *London.*

The introductory matter of *The Birds of Great Britain*, folio, 1862–73, set up in 8vo form for convenience of correction.

1875–88. The birds of New Guinea and the adjacent Papuan Islands, including many new species recently discovered in Australia. *5 vols. folio.* Vol. I, *pp. iii+108. 56 pl. (col.). T. of c.* Vol. II, *pp. (4)+(116). 58 pl. (col.). T. of c.* Vol. III, *pp. (4)+(144). 72 pl. (col.). T. of c.* Vol. IV, *pp. (4)+118. 59 pl. (col.). T. of c.* Vol. V, *pp. (4)+(150). 75 pl. (col.) T. of c.* *London.*

Issued in 25 parts. The distribution of the 320 fine hand-colored plates by Gould and W. Hart among their respective parts is given in the indexes. This truly magnificent work was completed by R. Bowdler Sharpe after Gould's death.

1880–1? Monograph of the *Pittidae.* Pt. I (all pub.). *folio. pp. (20, pt. I)+(2)+(20, pt. II). 10 pl. (col.).* *London.*

Partly written by Bowdler Sharpe after the author's demise.

1893. An analytical index to the works of the late John Gould. *See* SHARPE, R. B.

GOURRET, PAUL.
1894. Les Pêcheries & les Poissons de la Méditerranée. *8vo. illust.* *Paris.*

GOWAN'S NATURE BOOKS.
1907. Life in the Antarctic; 60 photographs with notes by W. S. Bruce. *See* BRUCE, W. S.

1907. Wild birds at home, photographed from life by C. Kirk. Series 5. Text by G. Girdwood. *See* GIRDWOOD, G.

1911. Wild birds at home. Third series. Sixty photographs from life, by C. Kirk, of British birds and their nests. *See* GIRDWOOD, G.

1914. Birds at the zoo. 2nd ser. *See* BERRIDGE, W. S.

1918. Birds at the Zoo. *See* BERRIDGE, W. S.

1921. Wild birds at home. Sixty photographs from life, by C. Kirk, of British birds and their nests. Text by G. Girdwood. *See* GIRDWOOD, G.

GRAEFE, H. und **NAUMANN,** J. F.
1836. Handbuch der Naturgeschichte des Thierreichs. Bd. I. Thierreich. *2 vols. (29 Hfte.). 8vo.* *Eisleben.*
A rare volume, the first of a popular but unfinished treatise on the animal kingdom in general by two noted zoologists. The full title of this work is *Naturgeschichte nach allen drei Reichen für Schule und Haus*, 1836–8. See *Bibliotheca Hist.-Naturalis*, Wilhelm Engelmann, 1846, p. 112. This title is not in the *Cat. Br. Mus. (Nat. Hist.)*.

GRAELLS Y DE LA AGÜERA, MARIANO DE LA PAZ [1818?–98].
1864. Manual practico de piscicultura. *Madrid.*
A rare Spanish handbook not listed in the *Cat. Br. Mus. (Nat. Hist.)*.

GRAESER, KURT.
1905. Der Zug der Vögel. Eine entwicklungsgeschichtliche Studie. *2te verm. Aufl. 8vo. pp. 167. T. of c.* *Berlin.*

GRAESSE, JOHANN GEORG THEODOR [1814–85].
1922. Trésor de livres rares et précieux ou nouveau dictionnaire. *8 vols.* *Berlin.*
An indispensable work of reference and an excellent supplement to Brunet's monumental *Manuel*. The original edition is very scarce.

GRAFF, LUDWIG VON [1851–?1926].
1896. Die Zoologie seit Darwin. *Graz.*
A valuable work of reference.

GRAHAM, HENRY DAVENPORT [1825–72].
1890. The birds of Iona & Mull. *8vo. pp. xv+279. illust. index.* *Edinburg.*
This contribution to the ornithology of the Hebrides consists chiefly of an account of bird shooting, with pictures of the brave 'sportsmen' killing (uselessly) defenceless and harmless animals at short range.

GRAHAME, JAMES [1765–1811].
n.d. Schottlands Vogelwelt (The birds of Scotland). In deutscher metrischer Uebersetzung von Dr. Ludwig Kopf. *8vo. pp. 36. a few cuts.* *Korneuberg.*
A German issue, in translation, of the 1806, versified, English (original) edition.

GRAN CHACO-EXPEDITION. *See* WISSENSCHAFTLICHE ERGEBNISSE DER DEUTSCHEN . . . EXPEDITION, 1930.

GRANDIDIER, ALFRED [1836–?1907].
1875–99. Histoire physique, naturelle et politique de Madagascar, etc. Vols. I–XXXIX. *4to.* *Paris.*
For this comprehensive history of Madagascar Grandidier acted as editor and part writer. The vertebrate zoology occupies many volumes of colored plates, the mammalia being described by A. Milne Edwards, A. Grandidier, and H. Filhol in vols. VI, IX, and X, 1875–97, 305 col. pl.; birds by Grandidier and Milne Edwards, vols. I, II, and IV, 1876–85, 400 col. pl.; fishes by H. Sauvage, pp. 543, 63 col. pl., 1887–91; reptiles by L. Vaillant and G. Grandidier, pp. 86, 27 col. pl., 1910—altogether a splendid example of systematic work.

GRANDIDIER, GUILLAUME [1873–].
1902. Madagascar au début du xxe siècle. *8vo.* *Paris.*
1902. *See* BLANCHARD, R. A. E., 1902.

GRANDVILLE.
1842. Scénes de la Vie Privée et Publique Des Animaux. *2 vols. 8vo.*
1867. [A later amended edition of] Scénes de la Vie Privée, etc.

GRANT, JOHN B.
1891. Our common birds and how to know them. *8vo. pp. 216. 64 pl. index.* *New York.*

GRANT, ROBERT EDMOND [1793–1874].
n.d. On the principles of classification as applied to the primary divisions of the animal kingdom. *pp. 58 (interleaved). 28 figs.* *?London.*
A presentation copy from the author.

GRANT, WILLIAM ROBERT OGILVIE-. *See* OGILVIE-GRANT, WILLIAM ROBERT.

GRÄSSNER, FÜRCHTEGOTT.
n.d. Die Vögel von Mittel-Europa und ihre Eier. 3te sehr vermehrte und gänzlich umgearb. Aufl. des früher erschienenen Werkes: Die Eier der Vögel Deutschlands von Naumann und Buhle. *4to. pp. 22+183. 24 col. pl. 441 text-figs.* *Dresden.*
A monograph on the nests and eggs of Middle European birds, with a discussion of the habits and nidification of the corresponding avian species. An undated third printing, the second having appeared in 1860, as of Naumann and Buhle's treatise, 1818, but greatly differing in all respects from that work. *See* NAUMANN AND BUHLE, 1818.

GRATZ (Austria). Naturwissenschaftlicher Verein für Steiermark Gratz.
1863–*date*. Mitteilungen. Indices.

****** Zoologisch-Zootomisches Institut.**
1886–1911. Arbeiten. *9 vols.* (all pub.).

GRAVE, BENJAMIN HARRISON [1878–] and **WALKER,** E. P.
1913. The birds of Wyoming. *8vo. pp. 137. front. T. of c. bibliogr. index.* [*Laramie, Wyo.*]
An annotated list of the birds of Wyoming, together with 13 local lists and a bibliography to date.

GRAVES, GEORGE [*fl.* 1777–1834].
1811–21. British Ornithology, being the History with a Coloured representation Of every known Species of British Birds. *3 vols. 8vo.* Vol. I (1811) not paged. *48 pl.* Vol. II (1813) unpaged. *48 pl.* Vol. III (1821) not paged. *48 pl.* The 144 plates are all colored. *London.*
This is the first edition. The second edition (in which the three parts are all dated 1821) is merely the sheets of the first with fresh title-pages. It is occasionally found with uncolored plates.

1816. Ovarium Brittanicum; being a correct delineation of the eggs of such birds as are native of, or domesticated in Great Britain. Pt. I (all pub.). *8vo. pp. vi. 15 pl. 50 col. figs. of eggs. index.* *London.*

The present copy of this unfinished but rather rare and well-illustrated little book has the original wrapper and label, from the library of Major W. H. Mullens.

1818. (The) naturalist's pocket-book; or, Tourist's companion. *8vo. pp. 8+335. 10 pl. (5 col.).* *London.*

The first edition of a popular natural history in which birds are discussed on pp. 58–138. The present copy is from the Mullens Library.

1821. British ornithology. 2nd ed. *3 vols. 8vo.* Vol. 1. *64 ll. 48 pl. (col.). index.* Vol. 2. *64 ll. 48 pl. (col.). index.* Vol. 3. *60 ll. 48 pl. (col.). index.* *London.*

The hand-colored plates of this edition are not of a very high order. It is said to have been issued also with uncolored ones.

1824. The naturalist's companion. *8vo. pp. 8+335. 8 pl. (5 col.).* *London.*

This is an alleged new edition but with the exception of a slight change in the wording of the title is an exact reproduction of the *Naturalist's Pocket-Book*, 1818. This printing occasionally has, as in this instance, only five colored plates.

GRAVESON, W. The natural history of Hertfordshire. *See* WILMORE, A., 1925.

GRAY, ALBERT ALEXANDER.

1907–8. The labyrinth of animals, including mammals, birds, reptiles and amphibians. *2 vols. 4to.* Vol. I, *pp. x+198. 31 pl. 2 figs. T. of c.* Vol. II, *pp. xiii+252. 45 pl. T. of c.* *London.*

An important and elaborate work designed to give the anatomy of the labyrinth, or inside of the ears of vertebrates, with the exception of fishes. A stereoscope is provided in a pocket at the end of vol. I.

GRAY, GEORGE ROBERT [1808–72].

1840. A list of the genera of birds, with an indication of the typical species of each genus. *8vo. pp. 8+80.* *London.*

The first edition of the earliest series of avian catalogues by this famous author. In this small volume many type specimens and names new to science are given and it consequently forms one of the fundamental and indispensable references for the student.

1841. A list of the genera of birds, with their synonyma, and an indication of the typical species of each genus. 2nd ed., revised, augmented and accompanied with an index. *1 vol. 8vo. pp. xii+115. index.* *London.*

In 1840 Gray published the first edition of this valuable work, in which a number of *nomina nova* occur. He issued an appendix in 1842, leading up to his more complete British Museum *Catalogue of the Genera and Sub-genera of Birds* in 1855. The volume in hand is a presentation copy and is from the library of J. E. Harting. A second copy in the E.S.W. Library is a gift from the author to L. L. Dillwyn. It has been interleaved, and an appendix (with MS. notes) added, and dated 1842. (From the Mullens Library.)

1843. *See* DIEFFENBACH, ERNST, 1843.

1844–8. List of the specimens of birds in the collection of the British Museum. *2 vols. pts. 1–4. 12mo.* *London.*

The present copy includes also the revised, second edition (published in 1848). This series was never completed but was superseded by the famous *Catalogue of the Birds of the British Museum*. So far as it goes it is, like its successor, a systematic list of the bird specimens in the museum.

1844–9. The genera of birds: comprising their generic characters, a notice of the habits of the genus, and an extensive list of species referred to their several genera. *3 vols. folio. 334 pl. (partly fold., 185 col.).* Originally issued in 50 parts *London.*

A very important and beautifully illustrated fundamental work. The various parts were irregularly published, the exact date of each issue being given by Zimmer (*Cat. Ayer Library*, p. 269). They correspond closely to the dates printed at the end of each part. The pages of the copy in hand have been continuously numbered in pencil.

1844–75. The zoology of the voyage of H.M.S. Erebus and Terror, etc. (Mostly by J. E. GRAY.) *See* RICHARDSON, *Sir* JOHN.

1852. List of the specimens of British animals in the collection of the British Museum. Part IX. Eggs of British birds. *12mo. pp. 4+143. London.*

1855. Catalogue of the genera and subgenera of birds contained in the British museum. *12mo. pp. 192. index.* *London.*

Of this important little 'fundamental' the introduction states that it furnishes a complete list of the genera and subgenera of birds, including their principal synonyma and types.

1859. Catalogue of the birds of the tropical islands of the Pacific Ocean, in the collection of the British museum. *8vo. pp. 72. index.* *London.*

A very valuable and early list, with a detailed synonymy. A number of new species are catalogued. The bird life of the Islands between long. 134° east and 130° west is included. The Compiler found this roster of greap help in writing his *Birds of Fiji* (see *Ibis*, 1926).

1859. Catalogue of the mammalia and birds of New Guinea, in the collection of the British Museum. By J. E. Gray . . . and G. R. Gray. *See* BRITISH MUSEUM—NATURAL HISTORY.

1863. Catalogue of British birds in the collection of the British museum. *8vo. pp. xii+247.* *London.*

1868? A Hand-Catalogue of the Genera, Subgenera and species of Birds; contained in the British Museum. *8vo. pp. 169.* Order 1. Birds of Prey, accipitres, Linn. (Original manuscript.)

This is the original MS. of a portion of Gray's famous *Hand-list*, bound and presented to the E.S.W. Library by Dr. Chas. W. Richmond. There are, also, several pen-and-ink sketches illustrating the written notes. A most interesting and valuable item of ornithological history.

1869–71. Hand-list of the genera and species of birds, distinguishing those contained in the British Museum. Pts. 1–3. *8vo.* Pt. I, *pp. xx+404. T. of c.* Pt. II, *pp. xv+(1)+278. T. of c.* Pt. III, *pp. xi+350. T. of c. 2 indexes. London.*

1871. A fasciculus of the birds of China. *folio. pp. 8. 12 pl. (col.).* *London.*

A series of hand-colored plates by W. Swainson, originally intended to illustrate a complete work on Chinese avifauna which was never written.

1871. List of British birds. Gray's arrangement. *See* TRISTRAM, H. B.

1873. [Birds of the South Sea Islands.] *See* BRENCHLEY, J. L.

GRAY, JOHN EDWARD [1800–75].

1828–1924. Spicilegia Zoologica; or Original Figures . . . of New and Unfigured Animals. Pts. I and II. *folio. pp. 12. 11 pl.* *London.*

Very rare. The third part, with colored plates of birds, &c., was published many years after Gray's death, the illustrations from plates left by the author. In addition to the paintings and sketches reproduced (by Janson) in part III a number of drawings, evidently intended to illustrate parts of the *Spicilegia*, are now in the library of the Natural History section of the British Museum.

[**GRAY,** J. E. (*contd.*)]

1829. Aves . . . the additional species inserted in the text of Cuvier. *See* CUVIER, G. L. C. F. D.

1830–4. Illustrations of Indian zoology chiefly selected from the collection of Maj.-Gen. Hardwicke. *2 vols. folio. 202 col. pl.* *London.*

Many of the type illustrations in this very important atlas are from drawings by Waterhouse Hawkins.

1831–44. The Zoological Miscellany. Six parts. *8vo.* *London.*

This is one of the rarest of avian serials—especially when the parts are complete.

1841. *See* GREY, *Sir* GEORGE, 1841.

1843. Fauna of New Zealand; materials towards a fauna of New Zealand, Auckland Island and Chatham Islands. *8vo. pp. 120. pl.* *London.*

Author's reprint from E. Dieffenbach's *Travels in New Zealand.*

1844–75. The zoology of the voyage of H.M.S. Erebus and Terror, etc. *See* RICHARDSON, *Sir* JOHN.

1846. Gleanings from the menagerie and aviary at Knowsley Hall. *folio. pp. [14]. 17 pl. (col.).* Privately printed. *Knowsley.*

A series of drawings of living specimens in the Earl of Derby's menagerie at Knowsley Hall, with notes by his lordship and J. E. Gray. The drawings were made by Mr. Edward Lear. The present copy is a presentation from J. E. Gray, and is from the Godman Library.

1849. Catalogue of the Snakes in the British Museum. *London.*

One of the famous series published by the Trustees.

1850. Gleanings from the menagerie and aviary at Knowsley Hall: hoofed quadrupeds, with drawings by Waterhouse Hawkins. *folio. pp. [4] +76. 62 pl.* Privately printed. *Knowsley.*

The library copy is a presentation from J. E. Gray with autograph. The plates were lithographed by W. Hawkins after his own water-color drawings, and are accompanied by descriptions by Lord Derby.

1850. *See* ADAMS, ARTHUR, 1850.

1859. Catalogue of the mammalia and birds of New Guinea, in the collection of the British Museum. *See* BRITISH MUSEUM—NATURAL HISTORY.

1868. Synopsis of the species of Whales and Dolphins. *4to. pp. 10. 37 pls.* *London.*

This is one of the numerous monographs issued by the author as part of the British Museum publications.

GRAY, ROBERT [1825–87].

1871. The birds of the west of Scotland, including the outer Hebrides. *8vo. pp. x+520. 14 pl. append. index.* *Glasgow.*

1876. On the birds of Glasgow and its vicinity. (*See* BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE. Notes on the fauna and flora of the west of Scotland, pp. 9–16.)

GRAYSON, ANDREW J.

1871. Natural history of the Tres Marias and Socorro. *8vo. pp. 45.* *Boston.*

Author's reprint from the *Proc. Boston Soc. Nat. History,* 1871. The results of three voyages to the Tres Marias off the western coast of Mexico in 1865, 1866, and 1867, and two visits to Socorro.

GREELY, ADOLPHUS WASHINGTON [1844–?1913]. *See* INTERNATIONAL POLAR EXPEDITION, 1888.

GREEN, CHARLES.

1842. The history, antiquities, and geology of Bacton, in Norfolk. *8vo. pp. 10+102. pl.* *Norwich.*

GREEN, D. M.

[**1920**]. Common poultry diseases. *8vo. pp. 8. 2 figs. T. of c.* (U.S. Dept. Agriculture. Farmers' Bull. 1114.) *Washington.*

GREEN, JOSEPH F.

1887. Ocean birds. *folio. pp. 12+98. 10 col. pl.* *London.*

GREEN, NEAL.

[**1918**]. Fisheries of the North Sea. *8vo. pp. 4+ 178. 1 pl. 1 map.* *London.*

A good account of economic ichthyology in Northern Europe.

GREEN, ROLAND. **1927.** *See* ORIGINAL DRAWINGS.

GREENE, EDWARD LEE [1843–1915].

[**1912**]. Carolus Linnaeus. Introd. by Barton W. Evermann. *12mo.* *Phila.*

Contains a chapter on 'Linnaeus as a zoologist', by W. H. Dall.

GREENE, WILLIAM THOMAS.

1884–7. Parrots in captivity . . . with notes on several species. *3 vols. 8vo.* Vol. I, *pp. x+144. front. (col.). 26 pl. (col.). T. of c.* Vol. II, *pp. xiv+ 111. front. (col.). 26 pl. (col.). T. of c. index.* Vol. III, *pp. viii+144. front. (col.). 26 pl. (col.). T. of c.* *London.*

A treatise on 81 species of parrots, parrakeets, lories, and cockatoos, &c., with accounts of their habits in life and in captivity, with supplementary remarks on many of the forms credited to F. G. Dutton. The first two volumes were issued in 18 parts of which the first six appeared in 1883, the remainder in 1884. Volume III appeared entire in 1887. A fourth volume is said to have been begun in 1888, of which only two parts with nine colored plates were issued.

1896. Feathered friends old and new. *8vo. pp. 8+ 302. pl. text cuts. T. of c.* *London.*

1898. Birds of the British Empire. *8vo. pp. [6]+ 360. 80 text-figs. index.* (The Imperial Library.) *London.*

1898. Popular parrakeets: their breeding and management by amateurs. *12mo. pp. (8)+92. 5 pl. 6 figs. T. of c. index.* *London.*

1922. Popular parrakeets, their breeding and management by amateurs. 2nd ed., by Rosslyn Mannering. *12mo. pp. (8)+103. 8 pl. 6 figs. T. of c. index.* *London.*

n.d. Popular parrakeets, their breeding and management by amateurs. *8vo. pp. (6)+100. 8 pl. 6 figs. T. of c. index.* *London.*

An enlarged printing of the edition of 1898, with three extra plates and some text matter.

n.d. The grey parrot and how to manage it. 2nd ed. *8vo. pp. (4)+92. T. of c. index.* *London.*

GREENHILL, G. A. *See* OPPIANUS, 1864.

GREENWOOD, HARRY. Random notes on Indian and Burman ornithology. *See* VAGRANT, 1868.

GREGG, *Mrs.* MARY (born KIRBY) [1817–93].

1872. Beautiful birds in far-off lands: their haunts and homes. *8vo. pp. viii+269. 11 col. pl. T. of c.* *London.*

In the production of this popular work the author was assisted by her sister Elizabeth Kirby.

GREGORY, OLYNTHUS GILBERT [1774–1841] and **others.**
1813. Pantologia; a new cyclopaedia. *See* GOOD, J. M.
A second edition of this work was published in 1819.

GREGORY, WILLIAM K.
1910. The orders of mammals. *32 figs. New York.*
Excellently written account of mammalia in general.

GREIFSWALD. Naturwissenschaftlicher Verein von Neu-Vorpommern und Rügen.
1869–1930. Mittheilungen.

GRENFELL, WILFRED THOMASON [1865–] and **others.**
1909. Labrador, the country and the people. *8vo. pp. xii+497. 54 pl. 1 map (col. fold.). 36 figs. in text. T. of c. 6 append. index. New York.*
The birds (216 species) are described by Dr. Chas. W. Townsend and Dr. Glover M. Allen.

GREPPIN, L.
1900. Notizen über einige der in der Umgebung von Solothurn vorkommenden Vögel. *8vo. pp. 59. Solothurn.*

GREW, NEHEMIAH [1641–1712].
1681. Museum regalis societatis; or, A catalogue and description of the natural and artificial rarities belonging to the Royal society and preserved at Gresham Colledge; whereunto is subjoyned the comparative anatomy of stomachs and guts. *2 vols. folio. illust. London.*
The remarks on nomenclature in the Preface show how naturalists were preparing the way for Linnaeus.

GREY, EDWARD, *Viscount of Fallodon.*
1926. Fallodon papers. *8vo. woodcuts.*
A local natural history, a reissue of the first edition.

[**1927**]. The charm of birds. *8vo. pp. xii+243. 22 figs. T. of c. append. London.*

GREY, *Sir* GEORGE [1812–98].
1841. Journals of two expeditions in north-western and western Australia . . . during 1837–9, &c. *2 vols. 8vo. illust. London.*
Important natural history volumes for which John Gould wrote an account of the Birds of the western coast; J. E. Gray contributed notes on the Mammalia and a catalogue of Reptiles and Amphibia.

GRIECHISCHE JAHRESZEITEN. **1873–6.** *Schleswig.*

GRIEVE, SYMINGTON.
1885. The great auk, or garefowl (Alca impennis, linn.) its history, archæology, and remains. *4to. pp. x+141+58. 3 pl. (2 col., eggs). 1 map (col. fold.). 6 figs. T. of c. 9 append. index. London.*
A very interesting monograph, from which, *inter alia*, we learn that there are of the bird about 80 skins in existence.

GRIFFINI, ACHILLE.
1911. I pesci—gli anfibi—I rettili. *30 col. pl. Genova.*
A popular work on fishes, amphibia, and reptiles, excellently illustrated.

GRIFFITHS, A. F.
1901. Catalogue of the cases of birds in the Dyke Museum, Brighton. *See* BOOTH, EDWARD THOMAS.

1927. Catalogue of cases of birds in the Dyke Road Museum, Brighton, giving a few descriptive notes, and the localities in which the specimens were found, by E. T. Booth, with further notes by A. F. Griffith. 5th ed. *See* BOOTH, E. T.

GRIFFITH, EDWARD [1790–1858].
1827–35. The Animal Kingdom, etc. *16 vols. 8vo.* (Wanting.)
Although avowedly 'based' on Cuvier's main treatise, these volumes contain a fair amount of new and original matter.

1829. (The) animal kingdom . . . by the Baron Cuvier . . . with additional descriptions of all the species hitherto named, and of many not before noticed. Tr. and ed. by E. Griffith, &c. *See also* CUVIER, G. L. C. F. D.

GRIFFITH, GEORGE RICHARD WALDIE- [1820–78].
1844. A synopsis of the characters of the carboniferous limestone fossils of Ireland, drawn and described by Frederick McCoy. *folio. pp. 8+207. pl. Dublin.*

1846. A synopsis of the silurian fossils of Ireland drawn and described by Frederick McCoy. *folio. pp. 72. pl. Dublin.*

GRIFFITHS, ARTHUR BOWER [1859–].
1912. Biographies of scientific men. *8vo. pp. xv+202. front. (portr.). 15 pl. (portr.). T. of c. index. London.*
A study of a group of men of science of the eighteenth and nineteenth centuries, that includes Cuvier, Linnaeus, and several other zoologists.

GRIMPE, G. and **WAGLER,** E.
1922–30. Die Tierwelt der Nord- und Ostsee, etc.
An important treatise of which ten parts have appeared to date.

GRINNELL, ELIZABETH [1851–] and **GRINNELL,** JOSEPH [1877–].
1898. Our feathered friends. *8vo. pp. xii+144. 37 figs. T. of c. Boston.*
A popular account (for children principally) of some of the commoner North American birds.

1903. Stories of our Western Birds. *8vo.*

GRINNELL, GEORGE BIRD [1849–].
1901. American duck shooting. *New York.*

GRINNELL, JOSEPH [1877–].
1898. Our feathered friends. *See* GRINNELL, E.

1900. Birds of the Kotzebue Sound Region, Alaska. *8vo. pp. 1+80. Santa Clara, California.*
This is No. 1 of the well-known Pacific Coast Avifauna, a serial publication of great value often issued as separate monographs. 150 avian species are recorded.

1909. Birds and mammals of the 1907 Alexander expedition to southeastern Alaska. *8vo. pp. 171–264. 2 pl. (1 map). 4 figs. T. of c. Berkeley, Calif.*
Author's reprint from Univ. Calif. Pub. in Zoology, 1909. The region dealt with is wholly within the faunal area first named by Nelson the Sitkan District. The expedition obtained 532 birds, 33 sets of eggs, some with nests, and 476 mammals, and upon these, together with the notebooks kept by most of the party, the reports are based.

1909. A bibliography of California ornithology. *2 vols. 8vo. pp. 166+191.* (Pacific Coast Avifauna.)
Although published as periodical monographs this valuable treatise calls for separate mention as a work of great value for the student of systematic ornithology, and should be kept specially for reference. The volumes in hand are a presentation from the talented author to the E.S.W. Library.

GRINNELL, J. (*contd.*)]

1912. Systematic List of the Birds of California. *pp. 23.* (Pac. Coast Avifauna, No. 8.)

1914. An account of the mammals and birds of the lower Colorado Valley, with especial reference to the distributional problems presented. *pp. 51–294. pl. 3–13 (1 map fold.). 9 figs. bibliogr.* *Berkeley.*

Author's reprint from *Contrib. Mus. Verteb. Zoology.* Contains, in part, a check-list of 150 avian species, which are further discussed with a record of specimens, distribution, variation, &c., in an annotated list with biographical notes and bibliography.

1918. The game birds of California. (Contribution from the University of California Museum of Vertebrate Zoology by Joseph Grinnell, Harold Child Bryant, and Tracy Irwin Storer.) *8vo. pp. x +642. front. (col.). 15 pl. (col.). 94 figs. (4 diagr., 4 charts, 1 map). 1 insert (tab. 7). bibliogr. index.* *Berkeley.*

A detailed account with notes on habits, distribution, nidification, and economic value, illustrated by L. A. Fuertes and Allan Brooks.

**** and **STORER,** Tracy.

1924. Animal life in the Yosemite; an account of the mammals, birds, reptiles, and amphibians in a cross-section of the Sierra Nevada. (Contribution from the Museum of Vertebrate Zoology, University of California.) *4to. pp. xviii+752. front. (col.). 61 pl. (11 col.). 1 chart (fold., col.). 1 map (fold., col.). 65 figs. 7 tab. (col.). T. of c. index.* *Berkeley.*

A comprehensive report on the vertebrates of the Yosemite Valley. The work forms a valuable handbook on the vertebrate life of the region, the present copy being an autographed one from the author to Dr. Casey Wood, with the remark that it is the first one given out!

1928. A distributional summation of the ornithology of Lower California. *8vo. pp. (2)+300. 24 figs. (maps). T. of c. bibliogr. index. Berkeley.*

An ample bibliography of 461 titles, pp. 247–86, is included to cover the ornithology of the district. (Author's reprint from *University of California Publications in Zoology,* 1928.)

****, **DIXON,** Joseph, and **LINSDALE,** Jean M.

1930. Vertebrate Natural History of Northern California through the Lassen Peak Region. *4to. pp. 5+594. 181 figs. T. of c. index. Berkeley.*

This fine treatise, excellently illustrated, is an author's separate, forming Vol. 35 of the *University of California Publications.* Its source is chiefly the staff of the Museum of Vertebrate Zoology most of whom contributed to its production, and it will surely prove of great value to the advanced student of Pacific Coast biology.

GRONINGEN. Zoologisch Laboratorium.

1909–*date.* Onderzoekingen.

GRONOVIUS, Laurentius Theodorus [1730–77].

1754. Museum Ichthyologicum, etc. *2 vols. folio. illust.* *Lugduni Batavorum.*

A well-known treatise—including an account of the amphibia. The copy in hand was Thos. Pennant's and has marginal notes by him.

1760. Bibliotheca regni animalis atque Lapidei, etc. *4to. pp. [ii]+326.* *Lugduni Batavorum.*

The copy of this rare work is in the Frank Adams Library.

GRÖNVOLD, Henrik.

1890–1901. *See* ORIGINAL DRAWINGS. Southern Cross Antarctic Expedition.

1913. *See* ORIGINAL ZOOLOGICAL DRAWINGS, 1913.

**** and **SWANN,** Harry Kirke.

[1915]–17. Illustrations of the game birds and water fowl of South America. *4to. pp. xi+(1)+38 pl. (col.).* *London.*

A series of 38 beautiful plates by Grönvold, originally intended to serve as a portion of the 400 illustrations of Brabourne and Chubb's *The Birds of South America,* 1912. The death of Lord Brabourne put a stop to that work when only one volume had been issued, and before any of the plates had appeared. Later, these plates appeared under the present title, with short explanatory notes by H. Kirke Swann, who had become responsible for their printing and publication. They were issued in two series, the first, consisting of 19 plates, appearing in 1915, and the remainder, with the above short notes, in 1917.

1924. [Original drawings of birds in black and white.] *See* ORIGINAL DRAWINGS.

1924. *See* BRITISH MUSEUM—NATURAL HISTORY.

1925. 15 preliminary sketches in monochrome and color; 20 finished water-color drawings of birds of prey (one 27 in. ×21 in.) used in illustrating Kirke Swann's *Accipitres.*

GROOS, K.

1900. The Play of Animals.

A popular and scientific study of the subject.

GROSER, Horace George.

1909. The Book of Birds; An Album of Natural History. *4to. pp. 4+309. 47 pl. (12 col.).* *London.*

GROSKURD, C. H. *See* SPARRMAN, A., 1784.

GROTE, Hermann.

1921–5. Aus der ornithologischen Literatur Russlands; Berichte und Übersetzungen. Nos. 1–5. Hefte I–V. *8vo. pp. 252.* *Halle (Saale).*

These very scarce and valuable translations of important contributions to ornithology comprise such literature as is inaccessible to students unacquainted with the Russian language, in which they originally appeared. A fifth part was published as a Supplement to *Falco,* Feb. 1925.

GROTE, Wilhelm [1835–1900].

1909. Die Süsswasserfische von Mittel-Europa, etc. *4to and folio. pp. 24+558. figs. in text. atlas. 31 col. pl.* *Frankfurt a/Main and Leipzig.*

C. Vogt and B. Hofer collaborated with the author in preparing this work—one of the outstanding monographs on the freshwater fishes of Central Europe.

GROUSE.

1911. The grouse in health and disease. *2 vols.* *London.*

GRUBE, Adolph Eduard [1812–80].

1861. Ein Ausflug nach Triest und dem Quarnero; Beiträge zur Kenntniss der Thierwelt dieses Gebietes. *8vo. pp. 8+175.* *Berlin.*

GRUNERT, Paul [1876–].

1906. Der Beckengürtel und die hinteren Extremitäten von Eudyptes Chrysocome. *folio. pp. [4]+20. pl.* (Leipzig University thesis.) *Roitzsch.*

GUBERNATIS, Angelo de, *Conte* [1840–?1911].

1872. Zoological mythology; or the legends of animals. *2 vols. 8vo.* Vol. I, *pp. xxv+432. T. of c.* Vol. II, *pp. vii+442. T. of c. index.* *London.*

In three parts, (1) Animals of the Earth, (2) Animals of the Air, (3) Animals of the Water.

GUÉNEAU DE MONTBEILLARD, Philibert [1720–85]. *See* BUFFON and others, 1749–1804.

GUÉRIN-MÉNEVILLE, FÉLIX EDOUARD [1799–1874].
1833–9. Dictionnaire Pittoresque d'Histoire Naturelle. *11 vols. 8vo.* *Paris.*

1833–40. Magasin de zoologie. Collection de mémoires et descriptions. *80 fine col. pl. (20 of birds).* *Paris.*
Of some value from the zoological viewpoint. Continued as the *Magasin de zoologie, d'anatomie comparée,* &c., 1833–49.

1833–40. *See* MARTIN SAINT-ANGE.

1848. Énumération des Mammifères recueillis en Abyssinie. *8vo.* *See* VOYAGES, FRENCH, EN ABYSSINIE, DANS LES PROVINCES DU TIGRÉ, etc., 1847–50. *Paris.*

GUERNE, JULES DE.
1888. Campagnes scientifiques du yacht Monégasque l'Hirondelle. Troisième année 1887. Excursions zoologiques dans les îles de Fayal et de San Miguel. (Açores.) *8vo. pp. 110. 1 pl. text illust.* *Paris.*

GUERNSEY, SARK, etc.; a handbook for invalids, geologists, &c. *See* ANONYMOUS.

GUICHENOT, ALPHONSE.
1839–61. *See* SAGRA, RAMÓN DE LA, 1839–61.
This voluminous writer, contributor to many sectional records of scientific voyages and expeditions, is best known to the Compiler as collaborator in Ramón de la Sagra's classic treatises.

1841–54. *See* VOYAGES, FRENCH, AU PÔLE SUD.

1844–67. *See* EXPLORATION SCIENTIFIQUE DE L'ALGÉRIE.

1844–71. *See* GAY, CLAUDE. Historia física y política de Chile.

1850–9. *See* CASTELNAU, F. L., 1850–9.

1851. [Reptiles and Fishes of Abyssinia.] *See* VOYAGES, FRENCH, EN ABYSSINIE, 1845–51.

GUIDE DU NATURALISTE. **1879–85.** *Paris.*

GUIDE TO NATURE. **(Agassiz Association.)**
1908–*date.* *Sound Beach, Conn.*

GUILLEMARD, FRANCIS HENRY HILL [1852–?1914].
1886. The cruise of the Marchesa to Kamschatka & New Guinea. With notices of Formosa, Liu-Kiu, and various islands of the Malay archipelago. *2 vols. 8vo.* Vol. I, *pp. xvii+284. front. (col.). 10 pl. 42 figs. 5 maps (col., 1 fold.). T. of c. 2 append. index.* Vol. II, *pp. xvi+399. front. (col.). 17 pl. 70 figs. 9 maps (8 col., 4 fold.). T. of c. 7 append. index.* *London.*
A useful, systematic and popular account of the faunal life observed during this celebrated Voyage. A 2nd ed. appeared in 1889.

1887. *See* GREEN, J. F.

1889. The Cruise of the Marchesa, etc. 2nd ed. *8vo.*

GUILLOTEAUX, H.
1913. Dans la Jungle.

GULF BIOLOGIC STATION. *Cameron, La.*
1902–10. Bulletin. (Wanting.)

GULF FAUNA AND FLORA BULLETIN.
1899? *Ruston, La.*

GULL. **(Audubon Association of the Pacific.)**
1919–30. *8vo.* *San Francisco.*
This lively little journal, devoted to the activities of the Society of which it is the organ, has many notes on bird study and protection, especially as they relate to the Pacific Coast. A. S. Kibbe was (1921) President of the Association.

GUNDLACH, JOHANNES [1810–96].
1852. Original drawing book. *8vo. pp. 121+2.* *Cardinas, Cuba.*
This interesting volume has about 67 spirited outline drawings of birds with a loose-leaf sketch of another taken from a letter addressed to Gundlach at Cardenas, Cuba, where he lived for many years, and postmarked 'Habana, 18 Oct. 1852'. The birds are in each instance given their English, Spanish, and zoological names. This item was secured for the E.S.W. Library through the courtesy of Dr. Chas. W. Richmond, and originally came from the library of Mrs. F. H. Knowles.

1873–6. Contribución a la ornithología Cubana. *4to. pp. 4+364. 2 append. index.* *Habana.*
A descriptive, systematic catalogue of Cuban birds, with their local names. A German translation appeared in the *Journ. f. Ornithologie,* 1871–5, but without the two supplements. It is an important contribution to American ornithology. The copy in hand is from the Godman Library. This author has also contributed, to periodicals, authoritative monographs on Cuban mammals and reptiles.

GUNNING, JAN WILLEM BOWDEWYN [1860–] and **HAAGNER,** ALWIN.
1910. A check-list of the birds of South Africa. *8vo. pp. (2)+84.* *Pretoria.*
(Supplement to the *Annals Transvaal Museum,* vol. II, July 1910.) This list contains the names of 920 species and subspecies of South African birds.

**** and **ROBERTS,** AUSTIN.
1911. New records and descriptions of new species of birds in the Transvaal Museum collection. *8vo. pp. 10.*

GÜNTHER, ALBERT CARL LUDWIG GOTTHILF [1830–1914].
1859–70. Catalogue of Fishes in the British Museum. *London.*
One of a famous series, indispensable to advanced students of ichthyology.

1864. The reptiles of British India. *folio. pp. 27+452. illust. pl.* *See* RAY SOCIETY. *London.*

1866. The Fishes of Zanzibar. *See* PLAYFAIR, ROBERT LAMBERT.

1869. The fishes of the Nile. *See* PETHERICK, JOHN. Travels in Central Africa.

1873–1910. Fische der Südsee. (Wanting.)
An excellent, comprehensive and systematic but all too brief treatise on the fishes of Oceania.

1877. Gigantic Land Tortoises in the British Museum (Nat. Hist.) *4to.* *London.*

1878. *See* NARES, G. S.

1879. *See* ROYAL SOCIETY OF LONDON, 1879.

1879–1915. *See* GODMAN and SALVIN. Biologia Centrali-Americana, 1879–1915.

1880. (An) introduction to the study of fishes. *8vo. pp. 16+720. illust.* *Edinburgh.*
A very important treatise on this general subject.

1880–95. *See* THOMSON, C. W. (Challenger Voyage), 1880–95.

[**GÜNTHER,** A. C. L. G. (*contd.*)]

[**1881**]. Account of the Zoological Collections made during the survey of H.M.S. 'Alert' in the Straits of Magellan . . . and Patagonia. *8vo. pp. 141. 11 pl.* *Lond.*

Issued as a separate treatise from the *Proc. Zoolog. Soc. Lond.*, 1881. The mammals are described by O. Thomas, the birds by R. B. Sharpe, and the reptiles, batrachians, and fishes by A. Günther.

1881. A guide to the Gould collection of humming-birds in the British Museum. *8vo. pp. (2)+22. 1 pl. (map, col.). 4 figs.* [*London.*]

A brief account not only of this collection, but of Humming-birds in general, of which there are about 430 different kinds, ranging from Sitka in North America to Tierra del Fuego in South America. The present collection consists of about 300 species, or 2,000 specimens, arranged in 66 glass cases, a list of which with short notes is given on pages 8–22.

1892. *See* PRATT, ANTWERP E.

GUNTHER, ROBERT WILLIAM THEODOR [1869–].

1925. Early science in Oxford. Vol. III, pt. I. The biological sciences; pt. II. The biological collections. *8vo. pp. xii+564. 64 pl., col. front. (the Dodo), and num. text-figs. index.* Pub. for the subscribers, Oxford.

This is a valuable contribution to early faunal literature and museum history, the alumni and benefactors of the University having contributed greatly to these departments of natural science.

GUPPY, HENRY BROUGHAM [1854–?1924].

1887. The Solomon Islands and their natives. *8vo. pp. xvi+384. front. (map col.). 10 pl. 4 figs. T. of c. index.* *London.*

Observations on the natural history of a group covering an area 600 miles in length.

1903–6. Observations of a Naturalist in the Pacific between 1896 and 1899. *2 vols. 8vo. illust.* *London and New York.*

This is an instructive work on the natural history of the Pacific Islands. The Compiler, who spent ten months on the Fiji and neighboring groups, derived much benefit from a perusal of the author's pages.

GURLT, ERNST FRIEDRICH [1794–1882].

1849. Anatomie der Hausvögel. *8vo. pp. [2]+94. 5 pl.* *Berlin.*

An early but well-written treatise on the anatomy of domestic fowl. From the library of Prof. Cabanis.

GURNEY, JOHN HENRY [1819–90].

1864. A descriptive catalogue of the raptorial birds in the Norfolk and Norwich museum. *4to. pp. 89.* *London.*

CONTENTS. Pt. 1. Serpentariidae, Polyboridae, Vulturidae (no more pub.).

1872. Notes on the birds of Damara Land and the adjacent countries of South-west Africa. *See* ANDERSSON, C. J.

[**1872**]. A sketch of the collection of Raptorial birds in the Norwich museum. *12mo. pp. 62.* *London.*

This rare but useful little pamphlet is not listed by Mullens or the *Br. Mus. Cat.*, but is mentioned in the *Cat. of the Lond. Zool. Soc.* The present volume is a presentation copy to R. B. Sharpe.

1884. A list of the diurnal birds of prey, with references and annotations: also a record of specimens preserved in the Norfolk and Norwich museum. *8vo. pp. 16+187.* *London.*

A useful list, sufficiently described by the title. The present copy is a gift from the author to H. Kirke Swann.

GURNEY, JOHN HENRY, *the Younger* [1848–1922].

1867. A summary of the occurrences of the grey phalarope in Great Britain during the autumn of 1866. *8vo. pp. 24.* *London.*

Inserted are several letters from Canon Tristram from whose library the present copy came.

1876. Rambles of a naturalist in Egypt and other countries. *8vo. pp. 6+307.* *London.*

The copy in hand is from the library of R. H. J. Gurney with pencil notes on British birds.

1884. Catalogue of the birds of Norfolk. Reprinted from Mason's *History of Norfolk. 12mo. pp. 47.* *London.*

List of 285 species described.

****** and others.**

1885. The house sparrow. *8vo. pp. vi+(2)+70+16 (adv.). front. T. of c.* *London.*

This little work comprises six articles dealing with the House Sparrow controversy in England and America, Elliott Coues among the contributors. The volume in hand is Canon Tristram's copy, from the Godman Library.

1887. On the misdeeds of the house-sparrow. *8vo. pp. 9.* *London.*

1913. The gannet, a bird with a history. *8vo. pp. li+567. front. (map). 5 pl. (2 col.). 136 figs. T. of c. bibliogr. 5 append. index.* *London.*

1921. Early annals of ornithology. *8vo. pp. 4+240. map. text-figs.* *London.*

A valuable and well-known work, useful for the student of the history of ornithology.

GURNEY, ROBERT. **1925.** *See* TURNER, EMMA L.

GUTHRIE, MARY J.

1927. Textbook of general zoology. *See* CURTIS, WINTERTON CONWAY.

GUTHRIE, WILLIAM [1708–70].

1815. A New Geographical, Historical and Commercial Grammar, etc. *2 vols.* (Vol. II, Zoology.) Very rare. (Wanting.) *See* ORD, G., 1849. *Phila.*

GUTHRIE-SMITH, WILLIAM HERBERT.

1914. Mutton birds, and other birds. *8vo. pp. 12+200. 76 pl.* *Christchurch, N.Z.*

A charming and popular account of *Puffinus griseus* and some other New Zealand birds.

1925. Bird life on island and shore. *8vo. pp. 19+195. 68 pl.* *Edinburgh.*

1927. Birds of the Water, Wood and Waste. 2nd ed. *8vo. pp. 207. figs. in text.* *Wellington, N.Z.*

GUY DE CHAULIAC. *See* CAULIACO, GUIDO DE and CHAULIAC, GUY DE.

GYLDENSTOLPE, NILS.

1913–16. Birds collected by the Swedish zoological expeditions to Siam, 1911–15. Pts. 1–2. *2 vols. folio. illust.* *Uppsala.*

1916. Zoological results of the Swedish expedition to Siam, 1911–15, including Snakes, Lizards and Batrachians.

GYLLING, OLOF.

[**1920**]. Nordens fåglar; med text sammandragen efter L. A. Jägerskiöld och Gustaf Kolthoff av

Reinhold Ericson. *folio. pp. (4)+58. 165 pl. (col.). index.* *Stockholm.*

This atlas of colored plates represents the birds very artistically in their natural surroundings. Swedish, Danish, Norwegian, and occasionally Lapp names are given in addition to the specific synonyms.

GYLLIUS, PETRUS. *See* GILLIUS, PETRUS.

HAACKE, JOHANN WILHELM. **1890.** *See* BREHM, A. E., 1890–3.

******** and **KUHNERT.**

1901. Das Thierleben der Erde. *3 vols. 120 col. pl.* *Berlin.*

HAAGNER, ALWIN KARL [1880–] and **IVY,** R. H.

1908. Sketches of South African bird-life. *8vo. pp. xxiv+181. front. 90 pl. (2 eggs). 16 figs. 1 diagr. 2 indexes.* *London.*

A popular account of the birds of South Africa, with a systematic index showing the relative position of any given species in ornithological classification.

1908. The South African birds of prey: their economic relations to man. Pamphlet no. 1. Bird Protection Committee, South African Ornithologists' Union. *8vo. pp. 23. 9 figs.*

1910. A check-list of the birds of South Africa, &c. *See* GUNNING, J. W. B.

1920. South African mammals. A short manual for the use of field naturalists, sportsmen and travellers. *8vo. pp. xx+248. illust.* *London.*

HAAN, WILLEM DE [1801–55].

1833. Fauna Japonica. *3 vols. folio. pl.* *Lugduni Batavorum.*

One of the collaborators with P. F. Siebold and C. J. Temminck in the production of this fine treatise on Far Eastern fauna.

HAARLEM. Musée Teyler.

1866–80. Archives. Series 1.

1881–1911. Archives. Series 2.

1912–*date*. Archives. Series 3.

HABANA.

1865–*date*. Anales d. Academia de ciencias médicas, sicas y naturales. *See* ACADEMIA DE CIENCIAS . . . HABANA.

HABITS OF BIRDS. *See* ANONYMOUS. [Domestic?] habits of birds.

HACHISUKA, MASAUJI.

1925. A comparative hand list of the birds of Japan and the British Isles. *4to. pp. 6+107. index.* *Cambridge.*

A list not only of Japanese birds but a comparison with them of many similar British birds.

1928. Variations among birds (chiefly game birds). Heterochrosis, Gynandromorphs, Aberration, Mutation, Atavism and Hybrids. *8vo. pp. vii+85. front. (col.). 23 pl. (3 col.). T. of c. bibliogr. 2 indexes.* [*Tokyo*].

The purpose of this work is to bring together scattered notes on specimens exhibiting unusual plumage or structural characteristics.

1929–30. Contributions to the birds of the Philippines. Nos. 1 and 2. *2 pts. 8vo. pp. 10+222. 3 pl.* *Tokyo.*

These valuable observations were contributed to the *Trans. of the Ornithological Society of Japan* as supplements 13 and 14.

HÄCKER, VALENTIN [1864–].

1896. Vogelwelt des südlichen Badens. *Freiburg.*

1900. Der Gesang der Vögel, seine anatomischen und biologischen Grundlagen. *8vo. pp. vii+102. 13 illust. in text. index.* *Jena.*

An important, scientific essay on the song and vocal apparatus of birds.

HADLEY, ALDEN H.

1927. Audubon Bird Cards. New Colored Drawings by Allan Brooks. Prepared under the supervision of Frank M. Chapman. *12mo. 50 pictures postcard size.* *New York.*

These useful and popular portraits of common winter birds of Eastern North America are extremely well done. The reverse side of the cards carry a brief account by the author of the habits and distribution of the species represented.

HAECKEL, ERNST HEINRICH [1834–1919].

1868. Natürliche Schöpfungs-Geschichte. *8vo. pp. 16+568. 9 pl.* *Berlin.*

This classic treatise under its English (translation and) title, *The Natural History of Creation*, might, as the author says, be properly entitled 'The History of Development', or the 'Evolution of Nature'.

1870. Das Leben in Meerestiefen. *Berlin.*

An interesting tractate by a famous naturalist.

1893. Zur phylogenie der australischen fauna. (Abdruck aus Semon, Zoologische forschungsreisen in Australien und dem Malayischen archipel.) *folio. pp. 24. (Jenaische denkschriften,* iv.) *Jena.*

Presentation copy from author, with autograph.

1894–6. Systematische Phylogenie. Entwurf eines natürlichen Systems der Organismen auf Grund ihrer Stammesgeschichte. *3 vols. 8vo.* *Berlin.*

Sub-title of the third volume is 'Systematische Phylogenie der Wirbelthiere (Vertebrata)'.

[**1904**]. Kunstformen der Natur. *folio.* (Bibliographisches Institut.) *3 vols. pl.* *Leipzig.*

1910. Last words on Evolution. English translation. *London.*

HAENEL, KARL.

1913. Unsere heimischen Vögel und ihr Schutz. *8vo. pp. 4+228. 8 col. pl. 59 text-figs. T. of c. index.* *Würzburg.*

A useful handbook on the protection, home care, and culture of German birds. The present copy is from the Cabanis-Reichenow collection.

HAGEDOORN, AREND LOURENS [1880–].

1921. The relative value of the processes causing evolution. *8vo. pp. [4]+294. illust.* *The Hague.*

HAGELBERG, W.

1879–81. Zoologischer Hand-Atlas. Vögel. *8vo. pp. [60]. 285 col. figs. on 24 pl. T. of c. index.* *Berlin.*

One of many German treatises written in popular style on selected species of birds of the world. The colored figures of birds, each about 1×1½ inches and embossed on heavy paper, are pasted in numbered spaces provided for them. Both the vulgar and systematic names are printed under each figure. The complete series was published in five vols., the above title relating only to Aves.

HAGEMAN, *Rev.* MILLER.

1905. Bird songs; a poetical ornithology. *folio. pp. 31. index.*

An incomplete, unpublished manuscript of 167 poems. The present

[**HAGEMAN,** *Rev.* M. (*contd.*)]

set is a mimeographed copy of every fifteenth poem of the series of 167, the music accompanying each poem being transcribed by a system of musical shorthand patiently developed by the author. Attached is a letter from the author's son to Dr. Casey Wood presenting the above set together with the additional poem No. 58 on the Nightingale.

HAGEN, WERNER.

1913. Die Vögel des Freistaates und Fürstentums Lübeck. *4to. pp.* [*4*]+*166. index. Berlin.*

A carefully prepared, systematic description of 267 species of birds. The monograph is supplied with a voluminous bibliography. The copy in hand is bound with the original wrapper and was in Prof. Reichenow's library.

HAGENBECK, CARL [1844–1913].

1909. Beasts and men, being . . . experiences for half a century among wild animals; tr. by H. S. R. Elliot and A. G. Thacker, with an introduction by P. C. Mitchell. *8vo. pp. xiii*+*299. 32 pl. 67 figs. T. of c. index. London.*

HAGENMÜLLER, PAUL-OCTAVE. **1872.** *See* CARUS, J. V.

HAGERUP, ANDREAS T.

1891. The birds of Greenland. Tr. from the Danish by Frimann B. Arngrimson. Ed. by Montague Chamberlain. *8vo. pp. viii*+*62. Boston.*

Of the 139 species enumerated in this monograph one is extinct, 53 are accidental visitors, and 24 are very rarely seen.

HAHN, CARL WILHELM [d. 1836] and **KÜSTER,** H. C., *eds.*

[**1818**]–**50.** Voegel aus Asien, Afrika, Amerika und Neuholland. *4to. 120 pl.* (*116 col.*). *Nürnberg.*

The present collection of 20 parts (1818–31), a very rare atlas of hand-colored plates of birds, formerly belonged to the Godman Library. It has the title-page of the reissue of 1850, but contains all the parts that were published to that date, with the original covers, notices to subscribers, &c., bound in. See the *Zimmer-Ayer Cat.* for a complete description of this important work. A reprint appeared in 1850.

1830. *See* REIDER, J. E. and HAHN, C. W., 1830–5.

1834. Naturgetreue Abbildung und Beschreibung der aussereuropäischen Vögel. Erste Abtheilung. Papageien. *8vo. pl. Nürnberg.*

**** and **KÜSTER,** H. C.

1834–41. Ornithologisches Atlas . . . der aussereuropäischen Vögel. *17 Hefte* (all pub.). *8vo. 136 col. pl. Nürnberg.*

A very scarce atlas of birds of the world, well illustrated by a large (unfinished) series of colored plates.

1850. Voegel aus Asien, Afrika, Amerika und Neuholland. *20 pts. 7 col. pl. Nürnberg.*

Second, inferior edition of the rare *editio princeps*, 1818–50.

HAIN, L.

1826–38 [**1891—1895—1902**]. Repertorium bibliographicum, etc. *indexes.*
Lipsiae. Stuttgart. London.

The McGill libraries are provided with copies of all these works of reference, so well known to bibliographers and advanced students and so necessary to every good library.

1925. Repertorium bibliographicum, etc. Neudruck. *4 vols. Berlin.*

Reprint of this famous work of reference.

HAINES, CHARLES REGINALD.

1907. Notes on the birds of Rutland. *8vo. pp. 48*+*175. 8 pl.* (*1 col.*). *map. 1 fig. in text. London.*

A subscription work on local birds which are systematically treated.

HAKLUYT, RICHARD [1553–1616].

1903–5. The principal navigations, voyages, traffiques & discoveries of the English nation, made by sea or over-land to the remote and farthest distant quarters of the earth at any time within the compasse of these 1600 yeres. *12 vols. 8vo.* Vols. I–XII, *pp. cclxxiv*+*5,677. 11 front.* (*portr.*). *94 pl.* (*maps, etc.*). *12 T. of c. 2 indexes. Glasgow.*

The first edition of Hakluyt's *The principal Navigations*, etc., *within the compasse of 1,600 Yeeres*, was printed in London in 1589 in 1 vol. folio, with a second edition revised and enlarged in 3 vols. folio in 1598, 1599, and 1600. The text of the present edition is an exact reprint of the 1598–1600 printing with a few minor alterations and corrections.

1926. The principal navigations, voyages, traffiques and discoveries of the English nation, etc. *8 vols. 12mo.* Vols. I–VIII, *pp. cii*+*3,172. T. of c. index. London.*

The present edition forms various numbers of 'Everyman's Library' edited by Ernest Rhys. The text is that of the complete reprint in 12 volumes, 1903–5.

1927–8. (The) principal navigations, voyages, traffiques & discoveries of the English nation, etc., with an introduction by John Masefield. *10 vols. 8vo.* Vols. I–X. *pp. cxxxvi*+*4,048. 10 front.* (*portr.*). *130 pl.* (*maps, etc.*). *10 T. of c. append. 2 indexes. London.*

The text is that of the reprint in 12 vols., 1903–5.

1927. Hakluyt's Principal Navigations. Introd. by John Masefield. *8 vols. 400 pp. each. illust. London.*

Perhaps the cheapest edition of this famous work.

HAKLUYT SOCIETY.

1847–*date.* The exceedingly important publications of this famous organization contain many volumes of great value and interest to biologists. A considerable number of these publications, separately listed, are in the zoological libraries of McGill University.

HALES, BENJAMIN JONES [1868–].

1927. Prairie birds. *12mo. pp. xv*+*334. front. 4 pl.* (*col.*). *89 figs. T. of c. index. Toronto.*

Written from a personal experience of almost thirty years' residence at Brandon, Manitoba, the text relating chiefly to the bird life of that region. Keys to orders and families, with descriptions of species, status, and habits, aid in identification, make a useful manual and work of reference.

HALIFAX NATURALIST.

1896–1904. Nos. 1–49 (all pub.).

HALL, CHARLES ALBERT [1872–].

1925. The open book of nature. 3rd ed. *8vo. pp. vii*+*248. 32 pl.* (*3 col.*). *53 figs. T. of c. glossary. index. London.*

HALL, F. G. **1928.** *See* PEARSE, A. S.

HALL, JAMES NORMAN [1887–] and **NORDHOFF,** C. B.

1921. Faery lands of the South seas. *pp.* (*10*)+*354*+(*1*). *front. 29 pl. T. of c. New York.*

Includes references to the natural history of Polynesia.

HALL, JOHN CHARLES [1816–76].

1841. Interesting facts connected with the animal kingdom. *8vo. pp. xvi*+*301. front. 3 pl.* (*1 fold.*). *T. of c. London.*

HALL, ROBERT [1867–].

[**1899**]. A key to the birds of Australia and Tasmania with their geographical distribution in Australia. *8vo. pp. 10+116. map. glossary. indexes.*

The first edition of a systematic list with very little descriptive matter. The present copy is from the library of P. L. Sclater, to whom it was presented by the author.

[**1906**]. A key to the birds of Australia with their geographical distribution. 2nd ed. *pp. xii+124. map.* *Melbourne.*

1907. The useful birds of southern Australia, with notes on other birds. *8vo. pp. 16+306. map. illust. index.* *Melbourne.*

1922. Australian bird maps. *12mo. pp. 220. 3 pl. 101 maps. index.* *Hobart.*

******** and **GILLIES,** W.

n.d. Nature studies in Australia, &c. *See* GILLIES, W.

HALLE. Naturwissenschaftlicher Verein fuer Sachsen und Thüringen.

1856–61. Abhandlungen 1–2 (all pub.).

1862–1930. New Series (no issues 1914–18).

(?)**1840–97.** Bericht 1–50 (all pub.).

1848–52. Jahresbericht 1–5 (all pub.).

1911–20. Mittheilungen (all pub.).

HALLE. Zoologischer Garten.

1905–20? Mitteilungen.

HALLER, ALBRECHT VON [1708–77].

1755. Sull' insensibilitá e irritabilitá di alcune parti degli animali. *4to. pp. 30+220.* *Roma.*

Produced with the help of Zimmerman and Castell and translated into Italian by P. G. V. Petrini.

1758. Historia Naturalis Ranarum. *folio. pp. 115. many col. pl.* In Latin and German. *Nürnberg.*

A very rare treatise (to which Haller has written a preface), most of the text by A. J. Roesel von Rosenhof.

1762. Opera minora emendata, aucta et renovata, etc. *3 vols.* 1762–8. *illust.* *Lausanne.*

The lesser works of this naturalist, in the *Bibliotheca Osleriana*, with many titles that are often published separately. *See* e.g. the *Cat. Br. Mus. Nat. Hist.*, pp. 774–5.

1780. Verhandeling over de hersenen d. vogelen en visschen. *pp. 100.* (?) *Leiden.*

A treatise in Dutch on ornithology and ichthyology by a famous naturalist, issued after his death. The present tractate is quite rare.

HALLIDAY, W.

[**1909**]. The book of migratory birds met with on Holy Island and the Northumbrian coast, to which is added descriptive accounts of wild fowling on the mud flats. *8vo. pp. 258. 28 pl. T. of c.* *London.*

Popular chapters on birds and so-called 'sport'. The writer describes the barbaric practices of bird killing in language one encounters so frequently in this type of book: 'Three mallards rise from a dyke. "Bang" "quack". A twist and turn of their necks and bodies tells that they have been hit, but they do not fall.' No, they do not fall but, after suffering hours of pain, probably die from drowning while the gentleman (?) who brutally wounded them goes home to a warm bed.

[**1922**]. Wild birds and their haunts (a book for students and sportsmen); with a foreword by Gene Stratton-Porter, and an introduction by W. Percival Westell. *8vo. 22½ cm. pp. 302. 32 pl. T. of c. index.* Autographed copy. *London.*

HALLOCK, CHARLES [1834–?1903].

1876. Camp life in Florida; a handbook for sportsmen and settlers. *12mo. pp. vi+348. T. of c.* [*New York.*]

A compilation from *Forest and Stream*, the records of two expeditions sent by the magazine to explore southern Florida.

HALLOWELL, EDWARD.

1853. *See* UNITED STATES, 1853.

1855. *See* UNITED STATES PACIFIC RD. SURVEY.

HALY, AMYRALD.

[**1887?**]. First report on the collection of birds in the Colombo Museum. *8vo. pp. 80. append. bibliogr.* *Colombo.*

A list of 360 species from Ceylon, compiled from W. V. Legge's *Birds of Ceylon*, 1880.

HAMBURG.

1897–1903. Bericht d. ornithol-oölog. Vereins zu Hamburg. I. u. II.

HAMBURG. Museum Godeffroy.

1873–1910. Journal des Museum Godeffroy. Geographische, ethnographische und naturwissenschaftliche mittheilungen. Vols. 1–[6] (hft. 1–17). *folio.* *Hamburg.*

A famous magazine of natural history, with many colored plates. The first part contains a plate of pigeons of the genus *Ptilinopus* of the South Sea Islands. In the eighth part there is a paper by Otto Finsch on the birds of the Pelew Islands with five colored plates by J. G. Keulemans, and in the twelfth part another paper by Finsch on birds of South Sea Islands, with colored plates.

HAMBURG. Naturhistorisches Museum (founded 1843).

1856–1930. Abhandlungen.

1875–1930. Verhandlungen.

This celebrated museum has issued many series of periodicals and numerous monographs.

HAMBURG. Naturwissenschaftliche Verein.

1846–*date*. Abhandlungen.

1871–*date*. Verhandlungen (4 series).

HAMBURG. Zoologischer Garten.

1921–*date*. Bericht.

See also ZOOLOGISCHE GESELLSCHAFT, HAMBURG.

HAMBURG. Zoologisches Staatsinstitut und Zoologisches Museum.

1882–*date*? Jahresbericht.

HAMERTON, PHILIP GILBERT [1834–94].

1874. Chapters on animals. *8vo. pp. (8)+252. front. 19 pl. T. of c.* *London.*

1883. Chapters on Animals. 4th ed. *8vo. 8 etchings.* *London.*

1893. Chapters on animals. *8vo. pp. (6)+253. front. 7 pl.* *Boston.*

HAMILTON, AUGUSTUS.

1880–95. *See* THOMSON, C. W. (Challenger Voyage).

1896. Deep-Sea Fauna of New Zealand. *8vo. pp. 29. 1 map.* *Wellington, N.Z.*

Extracts from the Report of the Challenger Expedition.

1909. Hand-list of birds inhabiting New Zealand. *8vo. pp. 19. 1 fig.* *Wellington, N.Z.*

MS. notes (by Mr. Falls, in pencil) indicate the number and character of examples in the Auckland Museum.

HAMILTON, C. M.
[**1920**]. Why Saskatchewan believes in bird protection. *See* CANADA. DOMINION PARKS BRANCH.

HAMILTON, DAVID WILEY [1878–].
[**1918**]. Nature-study lessons . . . Primary teachers' manual. *2 vols. 12mo.* Vol. I, *pp. xxix+191. 127 figs. T. of c.* Vol. II, *pp. xxix+229. 129 figs. T. of c. bibliogr. Montreal.*
Matter relating to birds will be found scattered throughout both books under the headings for each month of the year.

HAMILTON, EDWARD [1815–1903].
1890. The river-side naturalist. *8vo. pp. xvii+(1)+401. 206 figs. T. of c. index. London.*

1896. The wild cat of Europe. (Felis catus.) *4to. pp. 21+99. pl. London.*

HAMILTON, FRANCIS, formerly BUCHANAN [1762–1829].
1822. An account of the fishes found in the river Ganges and its branches. *4to and folio. pp. 7+405. atlas. 39 pl. Edinburgh.*
An early and important contribution to the study of East Indian fishes.

HAMILTON, JAMES STEVENSON- [1867–].
1929. The Low-Veld: its wild life and its people, with foreword by Lt.-Gen. J. C. Smuts. *8vo. pp. 12+228. illust. maps.* Author's letter inserted. *London.*

HAMONVILLE, JEAN CHARLES LOUIS TARDIF D' [1830–99].
1876. Catalogue des Oiseaux d'Europe ou énumération des espèces et races d'oiseaux, etc. *8vo. pp. 6+73.* Original wrapper dated 1876. *Paris and London.*
A useful catalogue of the systematic and vulgar names (genera and species) of the birds of Europe with their geographical distribution. Several names new to science are here given. The present copy is from the library of Prof. Reichenow with a few MS. notes.

HAMPSHIRE FIELD CLUB AND ARCHAEOLOGICAL SOCIETY.
1885/9–*date*. Papers and Proceedings.

1908–11. Shore memorial volume. Hampshire papers on natural history. By T. W. Shore and G. W. Minns. *8vo. pp. 8+392. portr. Southampton.*

HAMPSTEAD SCIENTIFIC SOCIETY.
1902–*date*. Report of Council and Proceedings. *Hampstead, London.*

HAMY, ERNEST THÉODORE JULES [1842–1908].
1908. Les Débats de Lamarck, etc.

HANAU, ARTHUR.
[**?1881**]. Beiträge zur Histologie der Haut des Vogelfusses. *folio. pp. 24+2. 2 pl. Frankfurt a. M.*
On the minute anatomy of the dermal covering of the feet in birds.

HANAU. Wetterauische Gesellschaft für die gesammte Naturkunde.
1809–19. Annalen. Bd. I–IV.

1858. Naturhist. Abhandlungen. Eine Festgabe. *8vo. pp. 12+392.*

1908. Festschrift zur Feier des hundertjährigen Bestehens. *8vo. pp. 149.*

HANCOCK, JOHN [1808–90].
1847. History of British birds. *See* BEWICK, T.

[**1874**]. A catalogue of the birds of Northumberland and Durham. *8vo. pp. 174. 13 pl. index. London.*
A descriptive, local list of 265 birds.

HANCOCK, THOMAS [1783–1849].
1824. Essay on instinct, and its physical and moral relations. *8vo. pp. xi+551. T. of c. London.*

HANDELINGEN van het nederlandisch natur en geneeskunding congres. 1–19.
1887–1923. *17 vols. Haarlem.*

HANDWÖRTERBUCH der zoologie, anthropologie und ethnologie. Herausgegeben von G. Jäger und A. Reichenow.
1880–1900. *8 vols. 8vo. illust. Breslau.*

HANF, P. BLASIUS.
1883. Die Vögel des Furtteiches und seiner umgebung. *2 vols. 8vo. pp. 101.* (Pt. 1.) *pp. 94. index.* (Pt. 2.) *Graz.*
Specially wrapped author's excerpts, of an important, systematic review of the birds of Mid-Southern Europe. Both the local and zoological names, habits, distribution, &c., are given of 246 indigenous species and 100 visitors. The copy in hand is a presentation from the author to Professor Blasius.

1904. Pfarrer P. Blasius Hanf als Ornitholog. *See* SCHAFFER, P. A.

HANIEL, CURT B.
1914–*date*. Zoologie von Timor . . . 1911 . . . Timor-Expedition. *1 vol. (2 Lief.) 4to. Stuttgart.*
The reports of this natural history exploration of the Lesser Sunda group of the Malay Archipelago were intended to cover the whole range of the zoology of the islands (and more) but the McGill libraries have so far seen only two Lieferungen. Lief. I, pp. 6+112, 1 col. pl., 1914, entitled *Die Avifauna von Timor*, by C. E. Hellmayr, written in the usual finished manner of that naturalist; also *Die Säugetiere von Timor*, by Ernest Schwarz. Probably the work was interrupted by the World War.

HANOI, INDO-CHINA. Mission Scientifique Permanente d'Exploration en Indo-Chine.
1906. Décades Zoologiques. Mammifères.

1905–7. Décades Zoologiques. Oiseaux.

1906. Décades Zoologiques. Reptiles.

HANOVER. Naturhistorische Gesellschaft.
1850–1930. Jahresbericht.

HANOVER. Niedersächsischer zoologischer Verein.
1910–19. Jahresbericht 1–10. *8vo. illust.* (All pub.) *Hanover.*

HANSEN, HANS JACOB [1855–].
1878–1907. *See* ZOOLOGIA DANICA.

HANSON, NICOLAI [–1899].
1902. Report on the collections of natural history made in the Antarctic regions during the voyage of the 'Southern Cross'. *See* SOUTHERN CROSS, BR. MUS. NAT. HIST., 1902.

HANTZSCH, BERNHARD.
1905. Beitrag zur Kenntnis der Vogelwelt Islands. *8vo. pp. 4+341. 26 text-figs. 1 pl. T. of c. index. Berlin.*
This useful work begins with a review of Icelandic natural history and a bibliography, followed by a full description of the avifauna (synonymy, range, &c.), with the native, English, German, Scandinavian, and systematic names of the birds.

1929. Contribution to the knowledge of the avifauna of north-eastern Labrador. *8vo. pp. 2+71. 2 figs.* [*Ottawa.*]

A translation by Mr. and Mrs. R. M. Anderson, from the *Journal für Ornithologie*, 1908, and reprinted from the *Canadian Field-Naturalist*. The present copy is an autographed presentation from the translators.

HARDCASTLE, Ella and **KNIGHT,** C. R. [*c.* **1909**]. Birds of the world for young people. *See* KNIGHT, C. R.

HARDING, Arthur Robert [1871–].
[**?1915**]. Ferret Facts and Fancies. *12mo. pp. 214. illust. Columbus, Ohio.*

Practical instructions in breeding these animals for their fur.

HARDWICKE'S SCIENCE GOSSIP FOR STUDENTS, etc.
1865–93. *See* SCIENCE GOSSIP. *London.*

HARINGTON, Herbert Hastings.
1909. The birds of Burma. *8vo. pp. (6)+134. T. of c. Rangoon.*

The majority of these notes originally appeared in the *Rangoon Gazette.*

HARLAN, Richard [1796–1843].
1825. Fauna americana; being a description of the mammiferous animals inhabiting North America. *8vo. pp. 318. Philadelphia.*

An early and important work.

HARLEY, James. *See* MACGILLIVRAY, WILLIAM, 1837–52.

HARMER, Sidney Frederic.
1895–1909. The Cambridge Natural History . . . edited by S. F. Harmer and A. E. Shipley. *10 vols. 8vo. London.*

The vols. devoted to vertebrate zoology have been separately noted under their various authors. These are Amphibia and Reptiles, pp. 12+668, col. maps, text-figs., 1901, by H. Gadow; Birds by A. H. Evans, pp. 16+635, illust. in text, 1902; Mammalia by F. E. Beddard, pp. 12+605, ill. text, 1902—all systematic treatises concisely arranged and of decided value.

HARPER, Francis.
1920. Okefinokee Swamp as a Reservation.

Author's reprint from *Natural History*, vol. xx, pp. 28–41, illus.

HARRIS, Harry [1878–].
1919. Birds of the Kansas City region; with an introduction by Ralph Hoffmann. *8vo. pp. (2)+57. 4 maps. index. Kansas City.*

Author's reprint from the *Trans. Acad. of Science*, St. Louis, 1919.

HARRIS, Henry E.
1901. Essays and photographs. Some birds of the Canary Islands and South Africa. *8vo. pp. xiv+212. 55 pl. map. T. of c. index. London.*

HARRIS, Thaddeus Mason [1768–1842].
1833. A Dictionary of the natural history of the Bible. New ed. *12mo. pp. xxiv+350. 151 figs. index. London.*

HARRIS, William Cornwallis [1807–48].
1840. Portraits of the Game and Wild Animals of southern Africa, etc. *folio. 26 col. pl. 1 map. London.*

This is the (rare) first issue of the first edition with the vignettes (animal horns, &c.) that were removed from the later printing. It is an important contribution to the subject in hand.

HARRY, S. G. and **GOSSARD,** H. A.
[**1912**]. Some Ohio birds, &c. *See* GOSSARD, H. A.

HART, Henry Chichester.
ca. **1890.** Animals mentioned in the Bible. *illust. London.*

1891. Some account of the fauna and flora of Sinai, Petra, and Wâdy 'Arabah. *4to. pp. x+255. 12 pl. 1 map (col. fold.). T. of c. index. London.*

1896. Les Animaux de la Bible. Traduit. *8vo. Paris.*

HARTENFELSS, Georgius Christophorus Petrus ab.
1715. Elephantographia curiosa, etc. *4to. front. 27 tab.* (Rare.) *Breslau.*

HARTERT, Ernst Johann Otto [1859–].
1891. Katalog der Vogelsammlung im Museum der Senckenbergischen Gesellschaft in Frankfurt-am-Main. *8vo. pp. 22+[2]+259. Frankfurt-a-M.*

This list, to which are appended many footnotes and other descriptive matter, is a useful catalogue of a large collection, numbering many thousands of birdskins and skeletons, well known to ornithologists. It is among the first publications of a celebrated and indefatigable worker.

1892. *See* SALVIN, O.

1897. Podargidae, Caprimulgidae und Macropterygidae. *4to. pp. 8+98. illust. Berlin.*

Author's reprint.

1901–2. Aus den wanderjahren eines naturforschers. Reisen und forschungen in Afrika, Asien und Amerika. *4to. pp. 13+329. 13 pl. Berlin.*

1902–20. *See* VICTORIA HISTORY OF THE COUNTIES OF ENGLAND.

1903–23. Die Vögel der paläarktischen Fauna. Systematische Übersicht der in Europa, Nord-Asien und der Mittelmeerregion vorkommenden Vögel. *3 vols. 4to. 268 figs. in text. Berlin and London.*

This well-known, thorough, comprehensive and indispensable study of palaearctic birds was issued in 19 parts, with several supplements. Collation of the three volumes is as follows: Vol. I, pp. xlix+832, 134 text-figs. Vol. II. pp. xxiv. 833–1764. Text-figures 135–256. Vol. III, pp. xii+1765–2328. Figs. nos. 257–68.

1905–14. Genera Avium. *See* WYTSMAN, P.

1911–13. The British bird book, &c. *See* KIRKMAN, F. B. B.

1912. A hand-list of British birds, with an account of the distribution of each species in the British Isles and abroad, by Ernst Hartert and others. *8vo. pp. xii+237. index. London.*

1913. Expedition to central western Sahara. *4to. pp. 163. pl. London.*

Author's excerpt, from *Novitates zoologicae*, Feb. 1913.

1923. Die Vögel der paläarktischen Fauna. Systematische Übersicht der in Europa, Nord-Asien und der Mittelmeerregion vorkommenden Vögel. Nachtrag, No. I. *4to. Berlin.*

The first (German) supplement to the monograph of the same title, 1903–23.

n.d. Ueber eine kleine Vogelsammlung aus der Provinz Preanger in West-Java. *8vo. pp. 11.*

On a small collection of bird-skins from West Java. Supplementary to Horsfield's *Zoological Researches in Java.* From the Reichenow-Cabanis collection of the E.S.W. Library.

HARTFORD NATURAL HISTORY SOCIETY.

1836. Transactions. No. 1 (all pub.) *pp. 91. col. pl.*

HARTING, JAMES EDMUND [1841–?1913].

1866. The birds of Middlesex. *8vo. pp. 16+284. 1 pl.* *London.*

1871. The birds of Shakespeare; critically examined, explained, and illustrated. *8vo. pp. xxii +321. 33 figs. T. of c. append. index.* *London.*

1871. The ornithology of Shakespeare. *8vo. pp. xxii +321. 33 figs. T. of c. append. index.* *London.*

This edition differs in no way from that of the same date, except in the title.

1871. Hints on shore shooting; with a chapter on skinning and preserving birds. *8vo. pp. 6+88.* *London.*

A short treatise on the most comfortable and effective method of murdering certain water birds, redeemed somewhat by directions how to preserve the skins of a few of them for scientific purposes.

1872. A handbook of British birds showing the distribution of the resident and migratory species in the British Islands with an index to the records of the rarer visitants. *8vo. pp. xxiv+198. index.* *London.*

Another revised edition (with 35 colored plates) by Schlegel was issued in 1901.

1875. The fauna of the Prybilov Islands. Abridged from the *Report on the Prybilov group or Seal Islands of Alaska*, by Henry W. Elliott; with an appendix on the ornithology by Dr. Elliott Coues (Washington, 1873). Reprinted from the natural history columns of *The Field* for private circulation. *8vo. pp. 38.* *London.*

1875. Our summer migrants. *8vo. pp. 10+336. 37 text-figs.* *London.*

The first edition of a deservedly popular work. It has appeared in at least three additional printings. The copy in hand was a present to Osbert Salvin from the author.

1877. Ostriches and ostrich farming. *See* MOSENTHAL, J. DE.

1880. British animals extinct within historic times; with some account of British wild white cattle. *8vo. pp. vii+258. illust.* *London.*

1880. The birds of Cornwall and the Scilly islands. *See* RODD, E. H.

****** and ROBERT,** L. P.

1880. Glimpses of bird life portrayed with pen and pencil. *folio. pp. 6+[40]. 20 col. pl. 43 cuts.* *London.*

A sumptuous volume whose text, written in popular style, is intended to act as a foil for the illustrator's fine pictures.

1883. Essays on sport and natural history. *8vo. pp. x+485. 32 figs. T. of c. index.* *London.*

1883. Sketches of bird life from twenty years' observation of their haunts and habits. *8vo. pp. xii+292. 10 pl. 29 figs. T. of c. index.* *London.*

1884. Hints on the management of Hawks, etc. *8vo. pp. 48. text-figs.* (Wanting.) *London.*

Written, about 1575, by an authority on falconry, ancient, medieval and modern. Harting's *Bibliotheca accipitraria*, Lond., 1891, gives a complete bibliography, with notes, glosses, &c., on the (universal) employment of birds to catch birds.

1890. The natural history and antiquities of Selborne. *See* WHITE, *Rev.* GILBERT.

1891. Bibliotheca Accipitraria. *pp. 19+289. pl.* *London.*

This volume gives the most complete bibliography of falconry, and is, on the whole, the most useful annotated work of its kind. There are many reproductions of illustrations from the works quoted, and numerous notes of value to students.

1891. *See* BERT, EDMUND, 1891.

1898. Hints on the management of hawks. 2nd ed.; to which is added practical falconry chapters historical and descriptive. *8vo. pp. viii+268. 10 pl. 42 figs. T. of c. index.* *London.*

1906. Recreations of a naturalist. *8vo. pp. 433. 83 figs. T. of c. index.* *London.*

HARTING, PIETER [1812–85].

1864. L'appareil épisternal des oiseaux. (Société des arts et sciences d'Utrecht.) *4to. pp. [2]+20. pl.* *Utrecht.*

Author's reprint from the Cabanis collection in the E.S.W. Library.

HARTLAUB, CARL JOHANN GUSTAV [1814–1900].

1844. Systematisches Verzeichniss der naturhistorischen Sammlung der Gesellschaft Museum [von Bremen]. Erste Abtheilung. Vögel. *4to. pp. iv+126.* *Bremen.*

This important and fundamental catalogue of (about) 2,000 species and subspecies in a collection of over 6,000 bird-skins and stuffed specimens was followed by a Supplement (Nachtrag, 1846) of 21 pp. adding over 240 more. A number of species and genera are new to science. Both these lists are rare and have little descriptive matter. The present copy is from the Cabanis-Reichenow collection.

1857. System der Ornithologie Westafrica's. *8vo. pp. lxvi+280. index.* *Bremen.*

An important contribution to the ornithology of West Africa, including synonymy, description (in Latin), range, distribution, and brief notes on external characters of over 800 species. There are two interesting copies in the E.S.W. Library; one from Prof. Reichenow's library with many marginal notes, and the other, double interleaved and filled with observations and emendations by an English owner, probably P. L. Sclater.

1861. Ornithologischer Beitrag zur Fauna Madagascars; mit Berücksichtigung der Inseln Mayotta Nossi-Bé und St. Marie, sowie der Mascarenen und Seychellen. *8vo. pp. xii+87. index.* *Bremen.*

A monograph of importance on the avifauna of Madagascar. The present copy has notes by P. L. Sclater.

1867. Beitrag zur fauna Centralpolynesiens. Ornithologie der Viti-, Samoa- und Tonga-inseln. *See* FINSCH, F. H. O.

1869–79. *See* DECKEN, C. C. VON DER, 1869–79.

1870. Die Vögel Ost-Afrikas. *See* FINSCH, F. H. O. and HARTLAUB, C. J. G.

****** and LINDEMAN,** M., *eds.*

1873–4. Die zweite Deutsche Nordpolarfahrt in 1869–70, etc. *2 vols. 8vo. illust.* *Leipzig.*

In this instance vol. II was devoted to zoology. Anthropology was undertaken by A. Pansch; mammals and fishes by W. Peters; birds by O. Finsch, and eggs by A. Newton. The expedition seems to have been financed or fathered by the Geographical Society of Bremen.

1877. Die Vögel Madagascars und der benachbarten Inselgruppen. Ein Beitrag zur Zoologie der äthiopischen Region. *8vo. pp. xlii+425. index.* *Halle.*

An important contribution to the avifauna of the Madagascar region. The copy in hand is a presentation from the author, and formed part of the Cabanis-Reichenow collection.

1895. (Ein) Beitrag zur Geschichte der ausgestorbenen Vögel der Neuzeit sowie derjenigen deren Fortbestehen bedroht erscheint. *pp. 43. Bremen.*

A reprint from the *Abhandlungen des naturwissenschaftlichen Vereins zu Bremen*, vol. XIV, pt. 1. A valuable contribution to the literature of extinct birds. A presentation copy from the author.

n.d. Ueber Ceylons Ornithologie. *8vo. pp. 151–60. n.p.*

Notes on the ornithology of Ceylon based on the early papers of Kelaart, Layard, and Blyth from the years 1852–3.

HARTLEY, G. INNESS and **others.**

1917. Tropical Wild Life in British Guiana, etc. *8vo. illust.* New York Zoological Society. *New York.*

This interesting treatise is based on the experiences of the author and his associates (William Beebe and P. G. Howes) at the station of the N.Y. Zoological Society, Kartabo, 50 miles up the Essequibo River. The Compiler spent most of two winters there and found it to be a naturalist's paradise.

HARTMANN, CARL E. W. R. [1832–93].

1885. Anthropoid Apes. *8vo. pp. 8+326. text. illust. London.*

One of the most interesting volumes in the International Scientific Series.

HARTT, CHARLES FREDERICK [1840–78].

n.d. The recent bird tracks of the Basin of Minas. *2 pts. in 1 vol. 8vo.* (*American Naturalist*, vol. 1, 1867.)

n.d. A naturalist in Brazil. *8vo. pp. 13. illust.* (*American Naturalist*, vol. 2.)

A similar account appears in this author's *Vacation Trip to Brazil.* in the Blacker Library.

HARTWIG, GEORG LUDWIG [1813–80].

1873. The tropical world: aspects of man and nature. New ed. *8vo. pp. xix+556. 6 pl.* (*col.*). *158 figs. T. of c. index. London.*

1887. Denizens of the deep. *London.*

A popular, posthumous publication.

HARTWIG, W.

1887. Die Vögel Madeiras. *8vo. pp. 452–86.*

An important contribution to our knowledge of the birds of Madeira and Teneriffe. The present copy of this excerpt was given a special binding and MS. title-page by the author and presented by him to Professor Möbius.

HARVARD UNIVERSITY. Museum of Comparative Zoology. *Cambridge, Mass.*

1863–*date.* Bulletin.

1864–*date.* Memoirs.

HARVARD UNIVERSITY. Zoological Laboratory. *Cambridge, Mass.*

1884–*date.* Contributions.

HARVEUS, GUL. *See* HARVEY, WILLIAM.

HARVEY, E. NEWTON.

[**1920**]. The Nature of Animal Light. *8vo. illust. Philadelphia.*

Useful little work on faunal psychology with a good index and bibliography.

HARVEY, W.

1829. The Tower menagerie. *2 vols. many figs.*

As in the case of the present volume this work is often bound with Harvey, W., 1830–1.

1830–1. The gardens and menagerie of the zoological society. Birds and quadrupeds. *many figs.*

HARVEY, WILLIAM [1578–1657].

1651. Exercitationes de generatione animalium. Quibus accedunt quaedam de partu: de membranis ac humoribus uteri: & de conceptione. *12mo. pp. 568. extra engr. t.-p. Amstelodami.*

An early edition of this well-known work. An almost complete collection of this celebrated physician's works are in the Osler Library.

HARVEY, WILLIAM HENRY [1811–66].

1854. The Sea Side Book. *8vo. illust. London.*

The first edition of this popular work appeared in 1849.

HARVIE-BROWN, JOHN ALEXANDER [1844–1916].

[**1877**]. I. On the distribution of birds in north Russia. II. Longitudinal distribution of species north of 64° 30′ N. lat., or the northern division. *8vo. pp. 30.*

Author's reprint from the *Annals and Magazine of Natural History*, July 1877.

1879. The capercaillie in Scotland. *pp. xv+155. 1 pl. 1 map* (*col.*). *1 fig. T. of c. append. Edinburgh.*

******** and **BUCKLEY,** T. E.

[**1887**]. A vertebrate fauna of Sutherland, Caithness and West Cromarty. *4to. pp. x+344. 7 pl. 2 maps* (*col., 1 fold.*). *4 figs. T. of c. 2 append. index. Edinburgh.*

One of a series of monographs for *A Vertebrate Fauna of Scotland.*

******** and **BUCKLEY,** T. E.

1888. A vertebrate fauna of the outer Hebrides. *4to. pp. xciii+279. 7 pl. 5 figs. 6 maps. T. of c. 6 append. index. Edinburgh.*

******** and **BUCKLEY,** T. E.

1892. A vertebrate fauna of Argyll and the inner Hebrides. *4to. pp. lxxxiv+262. 7 pl. 7 maps* (*1 col. fold.*). *3 figs. T. of c. 3 append. index. Edinburgh.*

******** and **BUCKLEY,** T. E.

1895. A fauna of the Moray Basin. *2 vols. 4to.* Vol. I, *pp. xxii+306. 14 pl.* (*1 fold.*). *3 figs. T. of c.* Vol. II, *pp.* (*8*)*+309. 8 pl.* (*1 col.*). *9 pl.* (*3 fold.*). *1 map* (*col. fold.*). *11 figs. T. of c. append. index. Edinburgh.*

******** and **MACPHERSON,** H. A.

1904. A fauna of the north-west Highlands and Skye. *8vo. pp. civ+378. 18 pl. 3 maps* (*1 fold. col.*). *30 figs. T. of c. 2 append. index. Edinburgh.*

[**1905**]. Travels of a naturalist in northern Europe, Norway, 1871, Archangel, 1872, Petchora, 1875. *2 vols. 4to. front. illust. pl.* (*partly col.*). *fold. maps. paged continuously.* Vol. I, *pp. xiv+260. 14 pl. 4 figs. in text. 2 maps.* Vol. II, *pp. viii+261–541. 9 pl.* (*2 col.*). *3 figs. 2 maps. London.*

HASKELL, WILLIAM S.

1914. Protection of migratory birds. (Commission of Conservation, Canada.) *8vo. pp. 8. Ottawa.*

Annual report and an exposition of the Federal Migratory Bird Law, the National Movement for Wild Life Conservation in the United States, and the benefits to be derived by Canada in adopting and supporting such measures.

HASKINS, CHAS. H.

1927. Studies in the History of Mediaeval Science. 2nd ed. *8vo. Harvard Univ. Press, Cambridge.*

This authority on the subject is of great importance to students of natural history as we know it in the Middle Ages.

HASLEMERE NATURAL HISTORY SOCIETY
1903–*date.* Science papers. (*London.*)

HASSALL, A. **1898.** *See* UNITED STATES, FISHERY REPORTS, 1898–9.

HASSELQUIST, FREDERIK [1722–52].
1766. Voyages and travels in the Levant; in the years 1749, 50, 51, 52 . . . pub. by Charles Linnaeus. *8vo. pp. 8+456. map.* *London.*
Translated from the Swedish. It contains a letter to Linnaeus and many observations of value in natural history.

1769. Voyages dans le Levant, etc. *1 vol.* *Paris.*
A French edition of the original Swedish. This important work was also published in German, 1762.

HASTINGS, CHARLES [1794–1866].
1834. Illustrations of the natural history of Worcestershire. *8vo. pp. iv+184. 1 map (col. fold.). T. of c. 5 append.* *London.*

HASTINGS AND EAST SUSSEX NATURALIST. **1906**–*date.* *St. Leonards.*

HASTINGS AND ST. LEONARDS NATURAL HISTORY SOCIETY.
1910–*date.* Reports.
1911/13 and 1916/17 in Hastings and East Sussex Naturalist.

HASWELL, WILLIAM AITCHESON [1854–]. *See* BR. A. A. SCIENCE, 1914.

**** and **PARKER,** T. J.
1920. A manual of zoology . . . Revised and adapted for the use of American schools and colleges. *See* PARKER, T. J. and HASWELL, W. A.

HATCH, PHILO L.
1892. Notes on the birds of Minnesota, with specific characters. *8vo. pp. 487. index.* (Geol. and Nat. Hist. Survey.) *Minneapolis.*
An excellent descriptive, systematic, local catalogue of 360 species.

HAUGHTON, SAMUEL [1821–97].
1873. Principles of animal mechanics. *8vo. pp. 14+495.* *London.*

HAVELL, ROBERT.
[*c.* **1835**]. A collection of the birds of paradise. *folio. pp. (2). 22 pl. (col.).* [*London.*]
A series of 22 engraved and colored plates by Robert Havell, with colored and engraved title also, but no text.

HAVILAND, MAUD DORIA.
1913. Wild life on the wing. *8vo. pp. (8)+244. front. 7 pl. 52 figs. T. of c.* *London.*

1915. A summer on the Yenesei (1914). *8vo. pp. xii+328. 15 pl. T. of c. index.* *London.*

**** (*Mrs.* H. H. BRINDLEY).
1926. Forest, steppe, & tundra; studies in animal environment. *8vo. pp. (12)+218. 8 pl. 1 map (fold.). T. of c. index.* *Cambridge, Eng.*

HAWKEYE ORNITHOLOGIST AND OOLOGIST. Edited and pub. by E. B. Webster and F. D. Mead, Gresco, Iowa. Monthly. *8vo.* Subtitle: A Monthly Magazine Devoted to Ornithology, Oology and [kindred subjects, and Geology]. 1888–1889. Varies in size from [Vol. I] $12\frac{1}{2} \times 9\frac{1}{2}$ in. to (Vol. II) $6\frac{1}{2} \times 9\frac{1}{2}$ and $5\frac{3}{4} \times 8\frac{1}{2}$ in. Green paper covers.
Frank L. Burns notes:
Vol. I. 1888. Nos. 1–12, Jan.–Dec. *pp. 134.*
Vol. II. 1889. Nos. 1–9, Jan.–Sept. *pp. 84.*
Nos. 7/8 double. (All issued.)
The owner's printing office and museum were destroyed by fire. Articles by W. C. Brownwell, W. L. Kells, W. S. Strode, E. G. Ward, J. Claire Wood, W. H. Davis, and others.

HAWKINS, BENJAMIN WATERHOUSE [1807–89].
1864. An elementary atlas of comparative osteology, the objects selected and arranged by T. H. Huxley and drawn on stone by B. W. Hawkins. *pp. [6]. 12 pl.* *London.*

1883. *See* SCIENCE LECTURES, 1883–5.

HAWKINS, R. C.
1910. Catalogue of Books by the First Printers, etc. *8vo.* *Oxford.*

HAWKINS, THOMAS [1810–89].
1840. The book of the great sea-dragons, Ichthyosauri and Plesiosauri. Extinct monsters of the ancient earth. *folio. pp. 27. 30 pl.* *London.*
The above appears to be a late edition, an earlier printing having been published in 1834.

HAWKINS, T. S.
n.d. The much-maligned rook. *8vo. pp. 4.* (Animals' Friend Society.) [*London.*]
An indictment against the wanton and cruel slaughter of callow rooks, which to say the least of it is foolish seeing that rooks do an enormous amount of good in clearing crops of wireworms.

HAY, ARTHUR, *9th Marquis of Tweeddale. See* TWEEDDALE, A. H., *9th Marquis of.*

HAY, OLIVER PERRY.
1902. Text book of Palaeontology. Vol. II. *8vo.*
The fossil reptilia in the English edition of K. A. von Zittel's famous work (q.v.) is revised by the author.

1908. The Fossil Turtles of North America. *4to. pp. 4+568. 113 pl. figs. in text.* *Washington.*
A noteworthy treatise, often found as a separate monograph, although originally issued as *Carnegie Institution Publication*, No. 75.

HAYAT AL-HAYAWAN. *See* AD-DAMIRI, etc.

HAYEK, GUSTAV VON.
1877–93. Handbuch der Zoologie. *4 vols. 8vo.* *Wien.*

HAYES, A. **1779–89.** *See* ORIGINAL DRAWINGS. HAYES, WILLIAM.

**** and **HAYES,** W.
[**1771–80.** Plates of birds.] *See* HAYES, W. and HAYES, A.

HAYES, CHARLES [*fl.* 1808–16].
1812–14. Original drawings of birds. *See* ORIGINAL DRAWINGS. HAYES, CHARLES.

HAYES, WILLIAM [1729–99] and **HAYES,** A.
[**1771–80**]. Plates of birds. *80 pl. n.p.*
A collection of 80 hand-colored plates bound as *Hayes's Birds* from the library of Earl Brownlow, Ashridge, formerly in the Bridgwater Library. Of these plates 42 are the same as the 66 in W. Hayes and family, *Rare and Curious Birds*, 1782, and 32 are the same as the 40 plates in W. Hayes' *Natural History of British Birds*, 1771–5. Thirteen plates do not appear in either of these publications and

would, therefore, appear to be new from a bibliographical point of view. Attached to the front of the volume are six sheets of foolscap paper with the above and other information typewritten and signed H.S.G. (Capt. Hugh Steuart Gladstone), 10. iii. 23, he having originally purchased this volume.

1775. A natural history of British birds, with their portraits, accurately drawn, and beautifully coloured from nature. *folio. pp. (2)+24. 40 pl. (col., 2 fold.).* *London.*

A series of hand-colored plates by the author with explanatory text, neither of which can truly be said to be of much scientific value. Only five plates have a printed title, none are numbered except in the text, but in this copy (contrary to some others, see *Ayer Catalogue*, p. 294) they are arranged so as to conform with the text.

1779–89. *See* ORIGINAL DRAWINGS.

******** and **others.**

1794–9. Portraits of rare and curious birds with their descriptions from the menagery of Osterly Park, in the county of Middlesex. *2 vols. folio. pp. [5]+101. col. front.* Vol. I. 1794. *pp. [5]+50. 50 col. pl. col. front.* Vol. II. [1799]. *pp. 51–101. 50 col. pl.* 'End of Vol. II.' *London.*

One of the famous, early colored illustrations of ornithology, by William Hayes and members of his numerous family. The copy in hand lacks the title to vol. II. In the McGill Library are many original drawings by this artistic family, some of the paintings having been used as 'patterns' to illustrate this and other volumes of bird plates issued by the Hayes family.

HAYWARD, JANE MARY [1825–94].

1895. Bird notes. *8vo. pp. xvii+181. 4 pl. 11 figs. index.* *London.*

Posthumous publication edited by Emma Hubbard.

HAZIN, MUHAMMAD ALI B. ABI TALIB [ob. A.D. 1766].

1810. Saydiyya. A treatise on hunting various kinds of game. *12mo. 47 ll.*

MS. copy in Persian of an eighteenth-century original by a well-known poet. The important first *bāb* gives an alphabetical list of animals with a concise description of them and of their habits.

1829. Husami or Faras-nāma-i-Ḥusāmī.

Modern rendering of a versified treatise on the horse, its selection, upkeep, treatment of its diseases, etc., in 55 short *bābs*, or chapters. The original author, who calls himself simply Ḥazīn, i.e. 'aggrieved', gives the date of completion of his work as 896 A.H., or 1491 A.D. He dedicates the book to a prince, but unfortunately does not mention his real name. He was obviously, at any rate at that time, not a ruling prince, as may be seen from his titles. Ivanow reports on this manuscript: 'The copy is complete, in fairly good state of preservation, though slightly affected by moisture. It is dated Rabi' I 1245 A.H., or September 1829.' He adds: 'The McGill Library has apparently another copy of this work, which I got for you in Shirat, in 1928. That copy, as far as I can remember, is slightly incomplete at the beginning. I subsequently acquired the present one because it is complete.'

HEAD, ARTHUR W. *See* ORIGINAL DRAWINGS.

HEADLEY, FREDERICK WEBB [1856–].

1895. The structure and life of birds. *8vo. pp. xx +412. 77 figs. T. of c. index.* *London.*

An attempt to give anatomical evidence of the development of birds from reptilian ancestors.

HEATH, HAROLD [1868–] and **JORDAN,** D. S.

1902. Animal forms; a second book of zoology. *See* JORDAN, D. S. and HEATH, H.

1903. Animal studies, &c. *See* JORDAN, D. S. and HEATH, H.

HEATHCOTE (afterwards SINCLAIR), FREDERICK GRANVILLE.

1885. Elementary text-book of zoology. *See* CLAUS, C. F. W.

HEATHCOTE, J. NORMAN.

1900. St. Kilda. *8vo. pp. xiii+229. 2 pl. 75 figs. 1 map (col. fold.). T. of c.* *London.*

Chapter IV is devoted to a description of the birds, with 30 illustrations.

HEATHERLEY, FRANCIS.

1913. The peregrine falcon at the eyrie. *4to. pp. (12)+73. 29 figs. T. of c. append. index.* *London.*

HEBENSTREIT, JOHANN ERNST [1703–57].

1743. Mvsevm Richterianvm. *folio. pp. 384. 16 pl.* *Lipsiae.*

Pieces of stratified rock containing the impressions of animal forms, such as dragon-flies, fishes, echinoderms, corals and shells, are called *Lapides Idiomorphi* or *Lapides Figurati*, and are not recognized as the remains of organisms.

HECK, *Dr.*

1925. Lebende Tiere . . . Zoolog. Garten Berlin. *4to.*

HECLA AND FURY, VOYAGES OF THE. *See* PARRY, WILLIAM EDWARD, 1826.

HEDDLE, R. **1848.** *See* BAIKIE, W. B. and HEDDLE, R.

HEDIN, SVEN ANDERS.

1898. Through Asia. *2 vols. 8vo. illust.*

Numerous references to the faunal life of the country. Translated from the German.

HEDLEY, CHARLES.

1919. Wild animals of the world. *8vo. pp. 128+ vii. 137 figs. index.* *Sydney.*

A descriptive account of the animals in Taronga Park, Sydney, as it stands to-day and 150 years ago. Of the 680 species of Australian birds 260 are said to have been found within a short distance of Sydney.

HEER, OSWALD [1809–83].

1876. The primaeval world of Switzerland. From the Germ. by W. S. Dallas; ed. by James Heywood. *2 vols. 8vo. col. illust. map.* *London.*

HEERKENS, GERHARDUS NICOLAUS [1728–1801].

1787. Aves Frisicae. *8vo. pp. xxiv+298.* *Rotterodami.*

The ornithology of Friesland described in Latin verse. Another edition bears the date 1788.

HEERMANN, ADOLPHUS L.

1853. Catalogue of the oological collection in the Academy of natural sciences of Philadelphia. *8vo. pp. 32.* *Philadelphia.*

1855. *See* UNITED STATES. PACIFIC RD. SURVEY.

HEERWAGEN, AUGUST.

1889. Beiträge zur Kenntnis des Kiefergaumenapparates der Vögel. *pp. 53. 6 fold. tab. 1 pl.* (Friedrich Alexanders Universität thesis, Erlangen.) *Nürnberg.*

An anatomical study of the parts about the palate of birds, based mainly on Max Fürbringer's work.

HEGNER, ROBERT WILHELM [1880–].

1920. An introduction to zoology. *12mo. pp. xii +350. 161 figs. T. of c. index.* *New York.*

HEIDECKE, ERNST.

1897. Ueber der Schnabelwulst des jugendlichen Sperlings. *8vo. pp. 50+[2]. 7 figs. on fold. pl.* (Inaugural dissertation, Leipzig.) *Leipzig.*

A laboratory report on the tuberosity on the mandibles of nestling sparrows.

HEIDELBERGER AKADEMIE DER WISSENSCHAFTEN. MATHEMATISCH-NATURWISSENSCHAFTLICHE KLASSE.
1910–*date*. Abhandlungen.

1909–*date*. Sitzungsberichte.

HEIDELBERG. Naturhistorisch-Medicinischer Verein.
1886. Festschrift zur Feier des fünfhundertjährigen Bestehens der Ruperto-Carola. *2 vols. in 1. illust. pl.*

1880–1914. Verhandlungen. New Series.

HEIDER, CARL [1856–]. *See* AKADEMIE DER WISSENSCHAFTEN.

HEILMANN, GERHARD.
1926. The origin of birds. *8vo. pp. (8)+208. 1 pl. (col.). 142 figs. T. of c. bibliogr. index. London.*
This important work consists of a compilation of all the data so far presented bearing upon the ancestry of birds.

1927. The origin of birds. *8vo. New York.*
American reprint of the original 1926 edition.

******** and **MANNICHE,** A. L. V.
1931. Danmarks Fugleliv. *8vo. pp. 315. 100 col. pl. 450 text-figs. Kjøbenhavn.*

HEILPRIN, ANGELO [1853–].
1887. The geographical and geological distribution of animals. *8vo. pp. xii+435 (map col.). T. of c. index. New York.*
This important work forms volume LVIII of 'The International Scientific Series', a second edition appearing in 1894.

1888. The Animal Life of our Sea-Shore, with special reference to the New Jersey Coast and the Southern Shore of Long Island. *12mo. pp. 130. illust. Philadelphia.*
An excellent treatise, not listed in the *Cat. Br. Mus. (Nat. Hist.)*.

******** and **others.**
1889. The Bermuda islands: a contribution to the physical history and zoology of the Somers archipelago. *8vo. pp. (8)+231. 18 pl. T. of c. append. Philadelphia.*

1894. The geographical and geological distribution of animals. 2nd ed. *8vo. pp. xii+435 (map col.). T. of c. index. London.*

HEIM DE BALSAC, HENRI.
1924. Contributions à l'ornithologie dans le Sahara Septentrional en Algérie et en Tunisie; avec notes sur la flore et la faune des régions parcourues. *4to. pp. 116. 1 pl. (col., eggs). 5 figs. (2 maps). index. Paris.*

1928. Fragments de bromatologie ornithologique; notes sur le régime alimentaire de quelques oiseaux indigènes. *8vo. pp. 15 Paris.*

HEIMANS AND THIJSSE.
1897–1926. *See* DE LEVENDE NATUUR.

1921. Van vlinders, bloemen en vogels. *Amsterdam.*
The fifth edition of a popular book on outdoor life.

HEINROTH, OSKAR A. [1871–].
1910. Die Brautente. Lampronessa sponsa L. und ihre Einbürgerung auf unseren Parkgewässern. *8vo. pp. xvi+71. 4 pl. (1 col.). Neudamm.*

******** and **HEINROTH,** *Frau* MAGDALENA.
[**1926–8**]. Die Vögel Mitteleuropas. *3 vols. 4to.* Vol. I, *pp. viii+339. 170 pl. (53 col.). T. of c.* Vol. II, *pp. iv+160. 99 pl. (27 col.). T. of c.* Vol. III, *pp. x+286. 140 pl. (49 col.). 19 figs. T. of c. Berlin.*
The authors had wonderful success in inducing birds to nest and rear the young in captivity and when, in 1908, a pair of goatsuckers which they had raised from the nestling stage brooded and brought up the young in their house, they decided to record their observations by the aid of the camera. There are about 3,000 selected photographic reproductions.

HEISMANN, M.
1912. How to Attract and Protect Wild Birds. 3rd ed. *pp. 100. illust. London.*

HELGOLAND. *See* WISSENSCHAFTLICHE MEERESUNTERSUCHUNGEN.

HELIOS; SOCIETATUM LITTERAE. (Naturwissenschaftlicher Verein des Regierungsbezirkes Frankfurt a. d. Oder.)
1883–1916. Abhandlungen and Mittheilungen. Nos. 1–28 (all pub.).

HELLMAYR, CARL EDUARD.
1903. Paridae, Sittidae und Certhiidae. *4to. pp. 32+255. illust.* (Das Tierreich. Lief. 18.) *Berlin.*

1905–14. Genera Avium. *See* WYTSMAN, P.

1906. Revision der Spix'schen Typen brasilianischer Vögel. *4to. pp. 166. pl. (Abhandlungen der K. Bayer. Akad. der Wiss., II.) München.*

1912. Zoologische Ergebnisse einer Reise in das Mündungsgebiet des Amazonas, etc. *4to. Munich.*
The Birds of this Voyage, whose reports were published under the auspices of the *Kgl.-Bayerische Akad. d. Wissenschaften* in Munich, were described by the author in their *Abhandlungen*, Bd. XXVI, No. 2, pp. 142. Author's separates are known.

1914. *See* HANIEL, CURT B.

1919–30. *See* CORY, CHAS. B.

HELSINGFORS. Societas pro Fauna et Flora Fennica.
[1821. Founded as Sällskapets pro Fauna et Flora Fennica.
1875. Societas pro Fauna et Flora Fennica.]
1848–75. Notiser ur . . . Forhandlingar, etc. Heft 1–3 are in *4to*, and were issued as a 'Bihang till Acta Societatis Scientiarum Fennicæ'. Heft 4–14 are also entitled 'Ny Serie, Hft. I–XI'. There is a 'Supplement . . . till 11 : te häftet' (N.S., Hft. VIII), giving the history of the Society from 1821 to 1871. *4to and 8vo. Helsingfors.*

Continued as:

1876. Meddelanden, etc. Hft. 1. *8vo. Helsingfors.*

1875. Acta. Vol. 1– . *8vo.* Each paper is separately paged. *Helsingfors.*

1859. Herbarium Musei Fennici. Förteckning öfver Finska Musei Växtsamling, utgifven af Sällskapet . . . och uppgjord af W. Nylander och T. Sælan. *8vo. pp. 118. 1 map. Helsingfors.*

1889–94. 2nd ed. *2 pt. 8vo. Helsingforsiæ.*
1. Plantæ Vasculares, curantibus T. Sælan, A. O. Kihlman, H. Hjelt. *pp. xix+156. 2 maps.*
2. Musci, curantibus J. O. Bomansson & V. F. Brotherus. *pp. vii+77+(1). 1 map.*

1862. Genmale med anledning af Sallskapets . . . Notiser Haft V och VI, etc. *8vo.*
See also FINSKA VETENSKAPS-SOCIETETEN.

HEMPELMANN, F. **1911–13.** *See* BREHM, A. E.

HENDERSON, GEORGE and **HUME,** ALLAN OCTAVIAN.
1873. Lahore to Yarkand. Incidents of the route and natural history of the countries traversed. *8vo. pp. xiv+370. 56 pl. (40 col.). 1 map (col. fold.). 26 figs. T. of c. 2 append.* *London.*
Report of an important scientific expedition. The ornithological results of the expedition are illustrated with 32 colored plates by Keulemans, and 17 text-figures. Several new species are described, with discussions of others both by Hume and Henderson. The work is reviewed in the *Ibis* for July 1873.

HENDERSON, I. F. and **HENDERSON,** W. D.
1920. A dictionary of scientific terms, pronunciation, derivation, and definition of terms in biology, botany, zoology, etc. *8vo. pp. viii+354.* *Edinburgh.*

HENDERSON, J. A.
1909. Nests and eggs, shown to the children. *12mo. pp. xvi+78. 47 pl. (col., 12 eggs). index.* *London.*

HENDERSON, JOHN BROOKS [1870–].
1916. The cruise of the Tomas Barrera; the narrative of a scientific expedition to western Cuba and the Colorados reefs, with observations on the geology, fauna, and flora of the region. *8vo. pp. ix +320. 5 pl. (col.). 36 pl. (6 maps). T. of c. index.* *New York.*

HENDERSON, JUNIUS [1865–].
1913. The practical value of birds. (*Bull. Univ. Colorado,* xiii. 4.) *8vo. pp. 48. T. of c.* *Boulder, Colo.*
Much enlarged and issued in book form under the same title in 1927.

1927. The practical value of birds. *8vo. pp. xii+ 342. T. of c. bibliogr. index.* *New York.*
A successful effort to analyse and digest the vast amount of literature on the food habits of birds and their relation to the material welfare of the human race, as well as to bring together the more significant data of Economic Ornithology in systematic arrangement.

HENDERSON, W. D. **1920.** *See* HENDERSON, I. F.

HENDY, E. W.
1928. The Lure of Bird Watching. *8vo.*

HENFREY, ARTHUR. **1844.** *See* TULK, ALFRED.

HENNICKE, CARL R.
1895. Der Graupapagei in der Freiheit und in der Gefangenschaft. *8vo. pp. 64. 1 col. pl.* (*Ornithologische Schriften des Deutschen Vereins zum Schutze der Vogelwelt,* no. 1.) *Gera.*
A popular work on the African Gray Parrot.

1905. Naturgeschichte der Vögel Mitteleuropas. *See* NAUMANN, J. A.

[**1911**]. Vogelschutzbuch. *12mo. pp. 16+126. 8 col. pl. 60 text-figs. index.* *Stuttgart.*
A well-known popular manual on the protection of birds at home and abroad. The copy in hand is from the Cabanis-Reichenow collection.

n.d. Die Leuchttürme und die Vogelwelt. *8vo. pp. 59. 7 pl.* *Gera.*
An important monograph on the effects of lighthouses on bird life. The present copy is a gift from the author.

HENON and **MOUTON-FONTENILLE.**
1802. (An 10.) L'art d'empailler les oiseaux, avec la méthode de les classer après le système de Linné. *8vo. pp. xvi+283. 5 copper pl. index.* *Lyon.*
This interesting treatise, issued in three parts, is not listed in the *Br. Museum Catalogue* and must be quite rare. Appended is a catalogue of the birds found in the Department of the Rhone.

HENRICI, D.
1915. Lösung der Vogelschutzfrage. *See* HIESEMANN, M.

HENRY, G. M. **1924–7.** *See* ORIGINAL DRAWINGS.

HENRY, JOSEPH [1797–1878].
[**1860**]. Instructions in reference to collecting nests and eggs of North American birds. *8vo. pp. 9. append.* *Washington.*
Instructions issued by the Smithsonian Institution as a guide to those proposing to collect and donate eggs to the Institution. Subsequently other circulars were issued, differing somewhat from this first, with further instructions.

1861. *See* SMITHSONIAN MISCELLANEOUS COLLECTIONS, 1861.

HENSHAW, HENRY WETHERBEE [1850–1929].
1874. Geographical and geological explorations and surveys west of the one hundredth meridian. *See* YARROW, H. C.

1874–89. *See* UNITED STATES. HUNDREDTH MERIDIAN.

1875. *See* WHEELER, GEO. M.

[**1880?**]. United States Geographical Surveys West of the One-hundredth Meridian. Ornithological report upon collections made in portions of California, Nevada and Oregon. (Annual report of the survey for 1879. *8vo. pp. 282–335.*) *Washington.*

1886. The code of nomenclature and check-list of North American birds adopted by the American ornithologists' Union. *See* AMERICAN ORNITHOLOGISTS' UNION.

1902. Birds of the Hawaiian Islands, being a complete list of the birds of the Hawaiian possessions, with notes on their habits. *8vo. pp. 146. index.* *Honolulu.*
An important contribution to the subject written in semi-popular style.

1918. Birds of town and country. (National Geographic Society.) *Washington.*

1919–20. Autobiographical notes. *4to. pp. 51. illust.* *Berkeley.*
Author's reprint from the *Condor,* vols. 21–2.

HENTSCHEL, ERNST.
1929. Das Leben des Weltmeeres. *4to. pp. 8+ 154. illust.* *Berlin.*

HERBERT, HENRY WILLIAM [1807–58].
1849. Frank Forester's fish and fishing of the United States and British provinces of North America. *8vo. pp. 16+455. figs. in text. pl.* *London.*

1864. Frank Forester's Fish and Fishing of the U.S. and British Provinces. *8vo. pp. 512. illust.* *New York.*
A later American edition of the original 1849 issue.

HERBERT, *Sir* THOMAS [1606–82].

1634. A relation of some yeares travaile begunne anno 1626. Into Afrique and the greater Asia, especially the territories of the Persian monarchie. *4to. pp. 8+226+12. illust.* *London.*

The *editio princeps* of a work interesting for the early descriptions of flora and fauna of the Far East. Many birds are described, among them the Dodo.

1677. Some years travels into divers parts of Africa and Asia the great. Describing more particularly the empires of Persia and Industan. *folio. pp. (8)+399+(18). 3 pl. (1 fold.). 5 maps. 50 figs. (7 birds). index.* *London.*

A curious old work the first edition of which appeared in 1634 under a different title, followed four years later by another edition also with a different title, a third impression much enlarged appearing in 1665, followed by the present fourth impression.

HERDMAN, WILLIAM ABBOTT [1858–].

1885. A phylogenetic classification of animals (for the use of students). *8vo. pp. (4)+76. tab. (fold.). 20 figs.* *London.*

HERING, J. M.

1665. De ortu avis Britannicae. *8vo. Wittenberg.*

HERMAN, OTTÓ [1835–1914] and **others.**

1891. J. S. v. Petényi, der Begründer der wissenschaftlichen Ornithologie in Ungarn, 1799–1855. *folio. pp. [8]+137. portr. pl.* *Budapest.*

1901. A madarak hasznáról és káráról. Darányi Ignácz M. Kir. Földmivelésügyi minister megbizásából. *8vo. pp. 279. 83 pl.* *Budapest.*

A well-known Hungarian treatise on useful and hurtful birds which has been translated into German and English. The present copy is from the Cabanis-Reichenow collection.

1903. Nutzen und schaden der vögel. Ins deutsche übersetzt von Johann Carl Rösler. *8vo. pp. 16+332. 100 pl. index.* *Gera.*

A German translation of a well-known original Hungarian work, 1901. The present volume is from the Cabanis-Reichenow collection.

1905. Recensio critica automatica [of the doctrine of bird-migration]. *pp. ix+74. 1 map (fold.). T. of c. index.* *Budapest.*

1905. The method for ornithophaenology inaugurated by the Hungarian central office of ornithology, by Ottó Herman. *4to. pp. 13. 10 maps.* *Budapest.*

A method of registering by means of maps, cards, and graphs the movements, dates of arrivals, departures, and geographical distribution of birds in any given area.

1905. Ornithologische Fragmente aus den Handschriften von J. S. von Petényi. Deutsch bearbeitet von T. Csörgey. *See* PETÉNYI, S. J. VON.

1906. Remarques sur les notes de M. le Dr. Quinet. *12mo. pp. 23.* *Budapest.*

1907. The international convention for the protection of birds concluded in 1902. *pp. v+241. T. of c. 3 indexes.* *Budapest.*

The present copy is a present from the author and bears his autograph. Several conventions have since been held.

******** and **OWEN,** J. A.

1909. Birds useful and birds harmful. *pp. viii+387. front. 158 figs. T. of c. index.* *Manchester.*

A ready handbook for the farmer, gardener, student, and bird-lover generally, of the food of birds and the part they play in the economy of nature.

HERMANN, JOHANN [1738–1800].

1783. Tabula affinitatum animalium olim academico specimine edita, nunc uberiore commentario illustrata cum annotationibus ad historiam naturalem animalium augendam facientibus. *4to. pp. 2+370. 3 tab.* *Argentorati.*

1804. Observationes zoologicae quibus novae complures, aliaeque animalium species describuntur et illustrantur. Opus posthumum edidit F. L. Hammer. Pars prior (all pub.). *4to. pp. 8+332. portr.* *Argentorati.*

HERMANN, RUDOLF.

n.d. Vögel und Vogelstimmen. 2nd ed. *8vo. pp. xii+154. 17 pl. (13 col.). index.* *Leipzig.*

HERMANNSTADT. Siebenbürgischer Verein f. Wissenschaften.

1850–1930. Verhandlungen und Mittheilungen.

HERMS, EDMUND. **1927.** *See* BERG, BENGT.

HERNANDEZ, FRANCISCO [1514–78].

1651. Nova plantarum, animalium et mineralium Mexicanorum historia a Francisco Hernandez medico, in Indijs praestantissimo primum compilata, dein a Antonio Reccho in volumen digesta, a Jo. Terentio, Jo. Fabro, et Fabio Columna, Lynceis notis, & additionibus longe doctissimis illustrata. With engraved title and large number of woodcuts of plants, animals, and minerals. *folio. pp. 16+950+90.* *Roma.*

Sabin, No. 31516. The author was a Spanish physician and naturalist sent to the North American Spanish Possessions by order of Philip II for the purpose of describing their productions, concerning whom Acosta remarks: 'Doctor Francis Hernandez hath made a goodly worke uppon this subject, of Indian plants, liquors and other phisicall things, by the King's expresse commission and commandement, causing all the plants at the Indies to be lively painted, which they say are above a thousand two hundred, and that the works cost above three score thousand ducats.' Prescott says concerning the above edition: 'The work of Hernandez is a monument of industry and erudition, the more remarkable as being the first on this subject, and after all the light from the labours of later naturalists it still holds its place as a book of the highest authority.'
The author was called 'the third Pliny'. The *editio princeps*, of 1615, was published in Mexico. See the facsimile reprint, 1888.

1790. Opera, cum edita, tum inedita, ad autographi fidem et integritatem expressa, impensa et jussu regio; ed. with pref. by C. Gomez de Ortega. *3 vols. 4to.* *Matriti.*

This work, which was intended to be a complete collection of all Hernandez' works in 5 vols., was not completed, and contains only the *De historia plantarum Nova Hispaniae.*

1888. Cuatro libros de la naturaleza y virtudes de las plantas y animales de la Nueva Espana; extractos de las obras del Francisco Hernandez, anotados, traducidos y publicados en Mexico el ano de 1615, por Francisco Ximenez. *8vo. pp. 52+301.* *Morelia.*

This facsimile is admirably done and is an excellent reproduction in all its parts of the famous original, printed and published in Mexico.

HÉROUARD, E. *See* DELAGE, MARIE YVES, 1896.

HERRERA, ALFONSO L. [1838–1901].

n.d. Notas acerca . . . Vertebrados . . . Mexico. *4to.*

HERRICK, CLARENCE LUTHER [1858–].

1892. The mammals of Minnesota. *8vo. pp. 299. 8 pl.* (Minnesota, Geol. and Nat. Hist. Survey. Bulletin, no. 7.) *Minneapolis.*

HERRICK, Francis Hobart [1858–].

1901. The home life of wild birds; a new method of the study and photography of birds. *pp. xix+148. 138 figs. index.* *New York.*

1917. Audubon the naturalist; a history of his life and time. *2 vols. illust.* *New York.*

An excellent, comprehensive biography with extensive bibliography and copious notes concerning the great naturalist's contemporaries.

HERRICK, Glenn Washington [1870–].

[*ca.* **1907**]. A text-book in general zoölogy. *8vo. pp. 388. 237 figs. T. of c. index.* *New York.*

HERTFORDSHIRE NATURAL HISTORY SOCIETY AND FIELD CLUB, WATFORD.

1879–*date.* Transactions. *London, Hertford.*
(Continues Watford Natural History Society.)

HERTWIG, Richard [1850–].

1927. Abstammungslehre und neuere Biologie. *4to. pp. 6+271. pl.* *Jena.*

HERTWIG, Wilhelm August Oscar [1849–1922].

1898. Lehrbuch der Entwicklungsgeschichte der Menschen und Wirbelthiere. 6te Auf. *8vo. pp. 18+634. 1 col. pl. text-figs. 1 pl.* *Jena.*

A well-known text-book on (comparative) development.

1912. Allgemeine Biologie. 4th ed. *Jena.*

1912. Das Werden der Organismen; eine Widerlegung von Darwin's Zufallstheorie. *8vo. pp. 12++710. illust.* *Jena.*

HERVIEUX DE CHANTELOUP, J. C. [1683–1747].

1709. Nouveau traité des serins de canarie, contenant la manière de les élever, les apparier pour en avoir de belles races. *8vo. pp. 20+356. 1 pl.* *Paris.*

The second of numerous translations and editions of a famous work on canary birds, the first having appeared in 1705.

1718. A new treatise of canary-birds. *12mo. pp. (12)+163. 2 pl. (diagr.).* *London.*

1718. Neuer Tractat von denen Canarien-Vögeln; Teutsche übersetzt. *2 vols. in 1. 16mo. pp. (12)+160+76. 2 pl. 1 fig. 2 indexes.* *Leipzig.*

1745. Nouveau traité des serins de canarie. *16mo. pp. xxxviii+368. 4 pl. 8 figs. T. of c. index.* *Paris.*

1746. Nouveau traité des serins de canarie. Nouvelle éd., rev., corr. & augmentée. *12mo. pp. 30+210. pl.* *Paris.*

1754. *See* Pernau, F. A. von.

1758. Besondere Nachrichten von den Canarien-Vögeln, etc. Neue Aufl. *2 Thiele. 2 pl.* *Frankfurt.*

1766. Nouveau traité des serins de Canarie. *illust.* *Paris.*

1771. Des Herrn Hervieux Nachricht von den Canarienvögeln. *12mo. pp. 196+6. index.* *Nürnberg.*

1785. Nouveau traité des serins de canarie. *8vo. pp. 12+294. pl.* *Paris.*

In this edition is given an account of the nightingale and other songsters.

HESSE and **DOFLEIN.**

1910–14. Tierbau und Tierleben. *2 vols.* *Leipzig.*

HESSELBERG, Abraham.

n.d. Zwölf Vögel gezeichnet von Abraham Hesselberg in München. *4to.* Col. lithographed title-page margined with portraits of birds.
Uttweil a. Bodensee.

This is a small but unusually well-drawn, hand-colored collection of 12 lithographs of selected species of birds. The plates are probably rare as they are not listed in any of the ordinary catalogues. From the Godman Library.

HETHERINGTON, W. M.

1831. American ornithology. *See* Wilson, A. and Jameson, R.

HEUGHLIN, Martin Theodor von [1824–76].

1856. Systematische Uebersicht der Voegel Nord-Ost-Afrikas mit Einschluss der arabischen Kueste des Rothen Meeres und der Nil-Quellen-Länder. *4to. pp. 72.* *Wien.*

1869–73. Ornithologie Nordost-Afrika's, der Nilquellen- und küsten-gebiete des Rothen Meeres und des nördlichen Somal-landes. *4 vols. 8vo.* Vol. I. 1869. *pp. cviii+1+416. 1 map. 18 col. pl. T. of c.* Vol. II. 1871. *pp. 2+417–851. 11 col. pl.* Vol. III. 1871. *pp. 2+xlviii+853–1261. 10 col. pl.* Mit Beiträgen von Dr. O. Finsch. Vol. IV. (Pt. 1.) 1871. *pp. 1+1263–1512+1.* (Pt. 2.) *pp. xlix–cccxxv+A–H. indexes. 12 col. pl.* *Cassel.*

An important detailed account of the avifauna of North-East Africa systematically arranged. The monograph was issued irregularly (or only partially dated) in 57 numbers. The map and plates are renumbered in the index. The present copy belonged to John Gould, and the inserted directions to the binder are probably in his handwriting.

1877. Reise in Nordost-Afrika. Schilderungen aus dem gebiete der Beni Amer und Habab. *2 vols. 8vo. illust.* *Braunschweig.*

The systematic classification is contained in the second volume, where the bustard family is placed next to the African Ostrich, in accordance with the older view prevailing at that time.

HEUSINGER, Karl Friedrich von [1792–1883].

1821. De metamorphosi rostri pici et de generatione mucoris in organismo animali vivente. *8vo. pp. 12.* *Jena.*

HEWITSON, William Chapman [1806–78].

[**1831–42**]. British oology. *2 vols. 8vo.* Vol. I, *pp. viii+(160). 72 pl. (col.). index.* Vol. II, *pp. 8+(182). 83 pl. (col.). index.*
Newcastle-upon-Tyne.

This first edition—very rare—of a standard work was issued in 37 parts, April 1, 1831, to June 1, 1838, with a supplement on October 1, 1842. With part 37 there was issued a title-page to vol. III with, however, a recommendation to subscribers to have the work bound in two volumes, which has been followed in the case of the present copy. Two later editions were issued under a somewhat different title. Not listed in the *Cat. Br. Mus. Nat. Hist.*

1842–6. Coloured illustrations of the eggs of British birds, accompanied with descriptions of the eggs, nests, etc. *2 vols. 8vo.* Vol. I, *pp. xvi+223. 62 pl. (col.).* Vol. II, *pp. (6)+225–470. 76 pl. (col.). index.* *London.*

This is the second edition. It was issued in monthly parts between 1842–6. It is quite different from the rare first edition, the text being rewritten, enlarged, and paged throughout. The plates are different also. Coues is in error in giving them as 144 instead of 138.

[**HEWITSON,** W. C. (*contd.*)]

1853–6. Coloured illustrations of the eggs of British birds, with descriptions of their nests and nidification. 3rd ed. *2 vols. 8vo.* Vol. I, *pp. xvi+289. 77 pl. (col.).* Vol. II, *pp. (4)+290–532. 72 pl. (col.). index.* *London.*

This is said to be the best of the three editions. It appeared in 38 parts from May 1853 to June 1856, being partly rewritten, enlarged, and supplied with new plates.

HEWITT, CHARLES GORDON [1885–1920].

1921. The conservation of the wild life of Canada. *8vo. pp. xx+344. 23 pl. 4 figs. 15 maps and charts (3 fold.). index.* *New York.*

A posthumous volume by the Dominion Entomologist. It covers the subject in a most excellent manner, being especially interesting to Canadians.

HEYDEN, CARL HEINRICH GEORGES VON [1793–1866].

1827. Reptilien. *folio. pp. 2+24. pl.* (Senkenbergische naturforschende Gesellschaft. *Atlas zu der Reise im nördlichen Afrika,* vol. 3.) *Frankfurt-a.-M.*

1828. *See* RÜPPELL, W. P. E. Atlas zu der Reise im nördlichen Afrika, etc.

HICKSON, SYDNEY JOHN [1859–].

1889. A naturalist in north Celebes; a narrative of travels in Minahassa, the Sangir and Talaut islands. *8vo. pp. xv+392. 6 pl. 29 figs. 2 maps (col. fold.). T. of c. 3 append. index.* *London.*

1894. Fauna of the Deep-Sea. *8vo. pp. 11+169. 1 pl. illust. in text.* *London.*

An interesting volume from Sir J. Lubbock's *Modern Science Series.*

HIERSEMANN, KARL W. (Publisher.)

1927. Bibliographie der Germanistischen Zeitschriften.

A valuable work of reference.

1928. Inkunabeln. *4to. pp. 4+103. illust.* *Leipzig.*

A dealer's catalogue of incunabula, with many titles of interest to zoologists.

HIESEMANN, MARTIN.

1908. How to attract and protect wild birds. *8vo. pp. 17+86. 49 figs. T. of c. append.* *London.*

Translated from the German first edition, 1907, by Emma S. Buchheim.

1911. How to attract and protect wild birds. 2nd ed. *8vo. pp. 13+101. 54 figs. T. of c. append.* *London.*

1912. How to attract and protect wild birds. 3rd ed. *London.*

1915. Lösung der Vogelschutzfrage nach Freiherrn v. Berlepsch. 6te ergäntzte und verbesserte Aufl. *8vo. pp. xii+172. 2 col. pl. num. figs. in text. index.* *Leipzig.*

HIGGINS, ELMER [1892–].

1930. Wild life. *See* REDINGTON, PAUL G.

HILDEBRAND, B. F. and **SCHROEDER,** W. C.

1927. Fishes of Chesapeake Bay. (*Bull. U.S. Bur. Fisheries,* vol. xviii, 1927, pt. I.) *Washington.*

This work includes general statistics and remarks on the Fisheries of Chesapeake Bay; also a systematic catalogue, with keys to families, descriptions, etc.

HILGENDORF, F. **1825–48.** *See* EHRENBERG, C. G.

HILL, JOHN [1716–75].

1748–52. A general natural history . . . of the animals, vegetables, and minerals, of the different parts of the world. *3 vols. folio. illust.* *London.*

Vol. III contains an account of the birds, with plates Nos. 17–24, representing 111 species.

1752. An history of animals. *folio. pp. (8)+584. 28 pl. index.* *London.*

This volume is one of three (perfect without the others) comprising the author's general natural history, 1748–52.

1752. Essays in natural history and philosophy; containing a series of discoveries, by the assistance of microscopes. *8vo. pp. 8+415.* *London.*

HILL, RICHARD [1795–1872].

1847. The birds of Jamaica. *See* GOSSE, P. H.

1851. A naturalist's sojourn in Jamaica. *See* GOSSE, P. H.

HINDS, RICHARD BRINSLEY, *ed.*

1844. The zoology of the voyage of H.M.S. Sulphur, under the command of Captain Sir Edward Belcher . . . during the years 1836–42. *2 vols. 4to.* Vol. I, *pp. (2)+150. 64 pl. (62 col.).* Vol. II, *pp. (2)+72. 21 pl. (col.). index.* *London.*

The ornithology of this scientific voyage (by John Gould) will be found in vol. I, pp. 39–50, illustrated with 16 colored plates, Nos. 19–34. Many new species were obtained, selections of which went to the British Museum and the collection of the Zoological Society. The present copy is from the Godman Library.

HINGSTON, RICHARD WILLIAM GEORGE [1887–].

1920. A naturalist in Himalaya. *8vo. pp. xii+300. 24 pl. (1 map). T. of c. index.* *London.*

1923. A naturalist in Hindustan. *8vo. pp. 7+292. front. 9 pl. T. of c. index.* *London.*

1925. Nature at the desert's edge; studies and observations in the Bagdad oasis. *8vo. pp. 299. 11 illust.* *London.*

1928. Problems of instinct and intelligence. *8vo. pp. 8+296. illust.* *London.*

HINROTH, O. and **HINROTH,** M.

1924–9. Die Vögel Mitteleuropas. Lief. 1–60. *4to. many col. pl.* *Berlin.*

This treatise, so far as published, is a fine example of scientific text and excellent illustration.

HINTON, MARTIN ALISTER CAMPBELL [1883–].

1925. Reports on papers by G. E. H. Barrett-Hamilton on the whales of South Georgia. *folio. pp. 159.* *London.*

1926. Monograph of the voles and lemmings (Microtinae) living and extinct. Vol. 1. *pp. xvi+487. 15 pl. 110 figs.* *London.*

HIRC, MIROSLAV.

1908. Horologische und gonimatische Beziehungen der Art *Accipiter nisus* (L.). *8vo. pp. [2]+19.* *Zagreb.*

A monograph on the hawk, *Accipiter nisus,* as seen in the Balkans.

1908. Die Jagdfauna der Domäne Martijanec. *8vo. pp. 85.* *Zagreb.*

A local list of animals interesting to the hunter. 161 species of birds found in the Croatian county Varazdin, are briefly described.

HIRSCH-SCHWEIGGER, Ernst.
1925. Zoologisches Wörterbuch . . . mit 477 abbildungen. *pp. 628.* *Berlin.*
A very useful zoological dictionary with many helpful illustrations.

HIRST, Henry B.
1843. The book of cage birds. 2nd ed. *pp. 278. T. of c. append.* *Philadelphia.*

HIS, Wilhelm [1831–1904].
1874. Unsere Körperform. *8vo. pp. 14+224. illust.* *Leipzig.*
1904. Wilhelm His. *8vo.* *Jena.*
Biography by Rudolf Fick. Abstracted from *Anatom. Anzeiger*, vol. 25, pp. 161–208. Author's reprint.

HITCHCOCK, Edward [1793–1864].
1833. Report on the Geology, Mineralogy, Botany and Zoology of Massachusetts. *8vo. pp. 700.* Lists of Birds, by Prof. E. Emmons. *Amherst.*
1835. Catalogues of the animals and plants of Massachusetts. *8vo. pp. 142.* *Amherst.*
A very useful manual for the study of New England flora and fauna.
1858. Ichnology of New England. *folio. pp. 12+220. maps.* *Boston.*

HLAWENSKY, Berthold.
1899. Die zahme Fasanerie. *See* hlawensky, j. and hlawensky, b.

HLAWENSKY, Johann and **HLAWENSKY,** Berthold.
1899. Die zahme Fasanerie. Leitfaden für den angehenden Fasanenzüchter und Gruende des Fasanensports. *8vo. pp. 81. 1 pl. 12 text-figs.* *Neudamm.*
A popular treatise on pheasant culture. A presentation copy from the author, in the Cabanis-Reichenow collection.

HOBBIES. *See* buffalo society of natural sciences.

HOBDAY, Frederick Thomas George.
1915. Anæsthesia & narcosis of animals and birds. *8vo. pp. xi+86. 4 pl. (5 figs.). 19 figs. T. of c. index.* *London.*

HOBHOUSE, L. T.
1915. Mind in Evolution. Latest ed. *pp. 450. illust.* *New York.*
Contains chapters on comparative psychology, including the avian.

HOBSON, Richard [1795–1868].
1866. Charles Waterton; his home, habits, and handiwork. *12mo. pp. xl+319. front. 15 pl. T. of c.* *London.*
A brief memoir of a talented and humane but eccentric man, who was passionately devoted to natural history pursuits, more especially to that of ornithology. He is best known for his *Wanderings in South America*, 1812–24.

HOCHWALT, Albert G. [1893–1920].
1923. Idylls of bird life. *8vo. pp. (2)+146. front. (portr.). 80 figs. T. of c.* *Dayton, O.*

HODEK, Eduard.
1882. Der Wanderer Heim. *8vo. pp. 22.* *Wien.*
On the migration of marsh birds in the valley of the Danube.

HODGSON, Bryan Houghton [1800–94].
[**1836**]. On some new species of the Edolian and Ceblepyrine sub-families, of the Lani[i]dae of Nepal. *8vo. pp. 6.*
Author's reprint published in the Valley of Nepal.
[**1836**]. On some new species of the more typical Laniidae of Nepal. *8vo. pp. 3.*
n.d. Indication of some new forms belonging to the Parianae. *8vo. pp. 7.*
n.d. On the Charj, or Otis Bengalensis. *8vo. pp. 8. 2 pl.*

HOEFER, Jean C. F. [1811–78].
1873. Histoire de la Zoologie depuis les temps les plus reculés jusqu'à nos jours. *8vo. pp. 412.* *Paris.*
An instructive account of the subject and a valuable work of reference.

HOERNES, Rudolf [1850–1922].
1884. Elemente der Paleontologie. *8vo. pp. 16+594. illust. in text.* *Leipzig.*
Vertebrate fossil deposits properly considered.

HOEVEN, Jean van der [1802–68].
1856–8. Handbook of zoology. Translated from the 2nd Dutch ed. by William Clark. *2 vols. 8vo.* Vol. I, *pp. xvi+853. 15 pl. T. of c. index.* Vol. II, *pp. xxiv+768. 9 pl. T. of c. index.* *Cambridge.*
1864. Philosophia zoologica. *8vo. pp. [4]+401.* *Lugduni Batavorum.*
[**1867**]. Annotationes de Dromade Ardeola Payk. *4to. pp. 15. 1 fold. tab.* *Dresdae.*

HOFFMAN, W. J.
1888. Annotated list of the birds of Nevada. (*Bulletin of the Geological Survey*, vol. vi, no. 2.) *pp. 203–56. 3 pl. (1 map). append. bibliogr.* *Washington.*
Author's edition.
This list is based partly upon notes and observations made by several field parties in 1871, as well as from the reports of other prominent authorities who have visited parts of Nevada.

HOFFMANN, Bernhard [1860–].
1908. Kunst und Vogelgesang. *8vo. pp. x+230. illust.* (music). *Leipzig.*
An instructive treatise on the technic of bird song, illustrated by musical notes. From the Cabanis-Reichenow collection.
1919. Führer durch unsere Vogelwelt. *12mo. pp. iv+216. index.* *Leipzig.*

HOFFMANN, Christian Karl.
1859. *See* bronn, h. g., Die Klassen, etc.
1890? Klassen u. Ordnungen d. Reptilien. *3 vols. 170 pl.* *Leipzig.*
This important monograph is frequently bound in with the author's companion work on amphibia, 1873–8. *See* bronn, h. g.

HOFFMANN, Julius.
1867. Die Waldschnepfe. *4to. pp. viii+151.* *Stuttgart.*
A popular account of the woodcock, with side glances at their value for food and the 'hunt'.
1887. Die Waldschnepfe, etc. *4to. pp. 8+196. 1 pl. index.* *Stuttgart.*
The second edition of a well-known monograph on that cosmopolitan bird, the woodcock, and its allies. The volume in hand is a presentation copy from the author to Prof. A. Reichenow.

HOFFMANN, RALPH [1870–], and **LANSING,** *Mrs.* J. H. (born STICKNEY).

[**1898**]. Bird world; a book for children by J. H. Stickney, assisted by R. Hoffmann. *See* LANSING, *Mrs.* J. H.

**** and **SETON,** E. T.

1901. Bird portraits, &c. *See* SETON, E. T. and HOFFMANN, R.

1923. A guide to the birds . . . with special reference to New England and eastern New York. *pp. xiii+357. 1 map. 95 figs. T. of c. addend. index.*

A new edition of the author's *Guide to the Birds*, 1904, under a slightly different title.

1925. Birds of the Pacific States, . . . description of 400 species. *8vo. pp. 353. 10 col. pl. 200 illust. in text.* *Boston.*

A semi-popular field manual useful to the outdoor naturalist.

HOFFMEISTER, WERNER [1819–45].

1848. Travels in Ceylon and India, including Nepal and parts of the Himalayas, to the Borders of Thibet. *8vo. pp. 12+527. 2 maps. Edinburgh.*

Of value to the student of vertebrate zoology. Several appendices include letters addressed to Humboldt on the birds of the Himalayas.

HOGBEN, L. T.

1918. Alfred Russel Wallace. The Story of a great Discoverer. *8vo. illust.* *London.*

HOGG, JOHN [1800–69].

[**1829**]. On the natural history of the vicinity of Stockton on Tees. *4to. pp. [2]+94. map.* *Stockton-upon-Tees.*

The sub-title reads: '1. A Catalogue of most of the Birds which are known to frequent the Country near Stockton.'

1845. A catalogue of birds, observed in South-Eastern Durham, . . . with an appendix. *8vo. pp. 50.*

Reprinted, with additions, from the *Zoologist*. It is a brief, descriptive list of 210 species.

HÖGMAN, SAMUEL.

1873. Jemförande framställning af skelettbyggnaden hos Colymbus och Podiceps. (Upsala University thesis.) *8vo. pp. 4+40.*

HOLBÖLL, CARL PETER [1795–1856].

1846. Ornithologischer Beitrag zur Fauna Groenlands; aus dem Dänischen uebersetzt und mit einen Anhang versehen von J. H. Paulsen. *8vo. pp. x+102. col. front.* *Leipzig.*

According to the translator's preface this fundamental study of the birds of Greenland was first presented to the 'Königl. dänische Gesellschaft der Wissenschaften' in 1840. The writer received for his work the silver medal of the Society, after which the monograph was published in vol. IV, part 4, of the *Zeitschrift für Naturwissenschaften*.

1854. Ornithologischer Beitrag zur Fauna Groenlands. Neue Ausgabe. *8vo. pp. x+102. col. front.* *Leipzig.*

A reissue of the first edition, 1846.

HOLBROOK, JOHN EDWARDS [1796–1871].

1842. North American Herpetology. *5 vols. 4to. illust. col.* *Philadelphia.*

An important work on local reptiles.

HOLDEN, CHARLES F. and **HOLDEN,** G. H.

1878. Holden's book on birds. *8vo. pp. (2)+128. 33 figs.* *Boston.*

1881. Holden's new book on birds. *8vo. pp. (2)+128. 33 figs.* *Boston.*

HOLDEN, GEORGE HENRY [1848–1914].

[**1883**]. Canaries and cage-birds. *4to. pp. 2+335. 7 col. pl. text-figs.* *New York.*

HOLDER, CHARLES FREDERICK [1851–1915].

1886. The ivory king; a popular history of the elephant and its allies. *12mo. pp. 14+330. 22 pl.* *New York.*

1887. Living lights; a popular account of phosphorescent animals and vegetables. New ed. *8vo. pp. 11+187. pl.* *London.*

1903. The Big Game Fishes of the United States. *8vo. pp. 14+435. illust. index.*

An excellent, semi-popular description of many American fishes.

1910. Recreations of a sportsman on the Pacific coast. *8vo. pp. 9+399. 74 illust.* *New York.*

HOLDER, J. B.

1846. Catalogue of birds noticed in the vicinity of Lynn, Mass., during the years 1844–6. *8vo. pp. 8.* (Lynn Natural History Society. Publications, no. 1.)

A catalogue of 185 species of birds, most of which are preserved in the Society's cabinets.

HOLDSWORTH, EDMUND WILLIAM HUNT.

[**1872**]. Catalogue of the birds found in Ceylon. *8vo. pp. 404–83. 4 pls. (col., XVII–XX).* *London.*

A well-annotated catalogue, in which 325 species are recognized. Of this number 37 species are exclusively confined to Ceylon. Author's reprint from the *Zoological Society of London, Proceedings*, 1872.

1877. Sea fisheries, by E. W. H. Holdsworth. Salmon fisheries, by Archibald Young. *12mo. pp. 4+300. illust. pl.* *London.*

HOLEWA, HUGO.

?1899. Die Vogelfauna in Schlesien. *8vo. pp. 28.* *Teschen.*

HOLLANDSCHE MAATSCHAPPIJ DER WETENSCHAPPEN. *Haarlem.*

1799–1844. Natuurkundige Verhandelingen. Series 1.

1841–68. Natuurkundige Verhandelingen. Series 2.

1872–*date*. Natuurkundige Verhandelingen. Series 3.

HOLLISTER, NED [1876–1927] and **KUMLIEN,** L.

1903. The birds of Wisconsin. *See* KUMLIEN, L. and HOLLISTER, N.

1911. A systematic synopsis of the Muskrats. *8vo. pp. 47. 5 pl. 1 col. map.* *Washington.*

No. 32 of North American Fauna by a brilliant naturalist in the service of the Biological Survey and Smithsonian Institution who died at the early age of 50 years. His numerous writings were mostly issued in the form of government publications.

1912. A list of the mammals of the Philippine Islands, exclusive of the cetacea. *4to. pp. 64.* (*Philippine Journal of Science*, vol. 7, Sect. D, no. 1.) *Manila.*

1916. A systematic account of the prairie dogs. (North Amer. Fauna, no. 40.) *8vo. pp. 37. 7 pl.* *Washington.*

1918–24. East African mammals in the United States National Museum. *8vo. pp. 8+164. 57 pl.* *Washington.*

Author's reprint of Bull. 99, U.S. Nat. Mus. Smithsonian Institution.

HOLMER, MARY R. NORRIS [1874–].

1923. Indian bird-life. *8vo. pp. 9+100. col. front. index.* *London.*

1926. Bird study in India; with an introd. by Lt.-Col. John Stephenson. 2nd ed. *12mo. pp. 148. 45 text-figs.* *London.*

HOLMES, SAMUEL JACKSON [1868–].

1916. Studies in Animal Behaviour. *London.*

A serious work on some phases of comparative psychology.

1928. The biology of the frog. 4th ed. *pp. 9+386. illust.* *New York.*

HOLMESDALE NATURAL HISTORY CLUB, REIGATE, ENGLAND.

1899–*date*. Proceedings.

HOLMESWORTH, LEONARD.

1905. Shakespeare's songsters and other birds, with over one hundred references. *8vo. pp. 42. 1 fig. T. of c.* *Leamington.*

HOLMGREN, AUGUST EMIL [1829–88].

1865–71. Skandinaviens foglar. *2 vols. 9 pl. 161 figs. in text.* (*Handbok i zoologii*).

One of the authorities on Scandinavian birds. *See also* WIDEGREN, H.

HOLT, E. W. L. **1909.** *See* CHALLENGER SOCIETY, 1909.

HOLTEN, J. S. **1788.** *See* MÜLLER, O. F.

HOLTE-WHITE, RASHLEIGH.

1906. Letters to Gilbert White of Selborne. *See* MULSO, *Rev.* JOHN.

HOLTZ, LUDWIG.

1890. Ueber das Steppenhuhn, Syrrhaptes paradoxus, und dessen zweite Masseneinwanderung in Europa in Jahre 1888. *4to. pp. 78.* *Berlin.*

This pamphlet recounts the irruption in 1888 into Europe from somewhere in the East of the club-footed sand-grouse, 'in numbers quite incalculable'.

HOLUB, EMIL [1847–1902] and **PELZELN,** AUGUST VON.

1882. Beiträge zur Ornithologie Südafrikas. *8vo. pp. 384. 5 pl. (3 col.). 94 cuts. index.* *Wien.*

An important, systematic account of South African birds, in which are described two species new to science. The present copy is from the Cabanis-Reichenow collection.

HOME, EVERARD [1756–1832].

1814–28. Lectures on comparative anatomy; in which are explained the preparations in the Hunterian collection. *6 vols. folio.* *London.*

Volumes 2 and 6 of this monumental work have the plates; 5 and 6 form a supplement.

1822. On the anatomical structure of the eye; illustrated by microscopical drawings, etc. *4to. pp. 2+10. 7 pl.*

A well-illustrated study in comparative anatomy, mostly of cross-sections of the eyes of birds, eagle, goose, &c. The steel plates show well the histology of the parts. A repaged article from the *Phil. Trans.*

HOME UNIVERSITY LIBRARY OF MODERN KNOWLEDGE.

[**1911**?]. The animal world, &c. *See* GAMBLE, F. W.

1927. Birds; an introduction to ornithology. *See* THOMSON, ARTHUR L.

HOMEYER, ALEXANDER VON [1834–?1905].

1897. Meine Eier-Sammlung. *pp. 19.*

Mimeographed autographed copy.

HOMEYER, EUGEN FERDINAND VON [1809–89].

1870. Erinnerungsschrift an die Versammlung der deutschen Ornithologen in Görlitz im Maj 1870. *pp. 53.* *Stolp.*

Important review of ornithological progress during recent years with special articles by Drs. Brehm, Cabanis, and Wiedemann on Scandinavian, Siberian, and Portuguese birds.

[**1877**]. Deutschlands Säugethiere und Vögel; ihr Nutzen und Schaden. *8vo. pp. 81.* *Leipzig.*

1879. Die Spechte und ihr Werth in forstlicher Beziehung. *8vo. pp. 35.* *Frankfurt a.M.*

An interesting account of various species of Woodpeckers, especially in their relation to tree culture. A second edition (q.v.) of this brochure was published also in 1879. Both are presentation copies from the author.

1879. Die Spechte und ihr Werth in forstlicher Beziehung. 2te Aufl. *8vo. pp. 37.* *Frankfurt a.M.*

1880. Reise nach Helgoland, den Nordseeinseln Sylt, Lyst, etc. *8vo. pp. 4+91.* *Frankfurt a.M.*

The author gives a descriptive catalogue of 114 bird species observed during a visit to Heligoland and neighboring islands.

1881. Ornithologische Briefe; Blätter der Erinnerung an seine Freunde. *8vo. pp. vi+340.* *Berlin.*

1881. Die Wanderungen der Vögel mit Rücksicht auf die Züge der Säugethiere, Fische und Insecten. *8vo. pp. x+415. T. of c.* *Leipzig.*

The author was known as the Nestor of Ornithologists then living. This is his standard book on the migration of birds.

1885. Verzeichniss der Vögel Deutschlands. *8vo. pp. 16.* *Wien.*

A repaged excerpt with several pages of MS. notes by (?) Prof. Reichenow adding many species to the 357 listed by the writer.

[**1886**]. Ornithologische Beobachtungen grösstentheils im Sommer 1869 auf einer Reise im nordwestlichen Russland Gesammelt. *See also* MEWES, W.

HOMING PIGEON ANNUAL.

One volume yearly from 1906–16. *See* HOMING PIGEON. *London.*

HOMING PIGEON, THE, and **National Homing Union Members' Gazette,** with which is incorporated the **Homing News** and the **Homing World.**

1905–30. Weekly. *4to.* *Birmingham.*

This periodical deals chiefly with the activities of the various British societies and trades devoted to pigeon culture, as well as to racing and other forms of sport. It is specially the organ of the National Homing Union. It constitutes a valuable source of information touching all these matters as they developed in Great Britain at the beginning of the twentieth century.

H—O—O. *See* HAWKEYE ORNITHOLOGIST AND OOLOGIST.

HOOD, THOMAS. *See* (afterwards) COCKBURN-HOOD, 1872.

HOOIJDONK, R. J. VAN.
n.d. Over kanaries en volière-vogels. *8vo. pp. 48. Amsterdam.*

HOOKER, JOSEPH DALTON [1817–1911].
1854. Himalayan journals; or, Notes of a naturalist in Bengal, the Sikkim and Nepal Himalayas, the Khasia mountains. *2 vols. 8vo. 2 maps. col. pl. text-figs. London.*

1855. Himalayan journals. *2 vols. 8vo.* Vol. I, *pp. xvi+348. 4 pl. (1 col.). 37 figs. T. of c.* Vol. II, *pp. xii+345. 1 pl. 35 figs. T. of c. index. London.*
A revised and condensed edition of the *editio princeps* of 1854.

**** and **BALL,** JOHN.
1878. Journal of a tour in Marocco and the Great Atlas. *8vo. pp. xvi+499. 8 pl. 1 map (fold.). 13 figs. T. of c. 11 append. index. London.*

HOOKER, WILLIAM JACKSON [1785–1865].
1813. Journal of a tour in Iceland in the summer of 1809. 2nd ed. Additions. *2 vols. 8vo. illust. pl. maps. London.*

HOOSIER NATURALIST. *See* KANSAS CITY SCIENTIST.

HOPKINS MARINE LABORATORY. Leland Stanford University.
1895–1904. *Contributions.* Nos. 1–32. (Mostly on Fishes and Flora.) All pub. *See* UNION LIST OF SERIALS, p. 1383.

HOPKINSON, EMILIUS [1869–].
1926. Records of birds bred in captivity. *8vo. pp. 9+330. London.*
A valuable work on this subject, including an account of (1) species that have been bred in confinement, (2) hybrids that have been bred, and (3) a summary of the records—816 species in all.

HOPLEY, CATHERINE C.
1882. Snakes: Curiosities and Wonders of Serpent Life. *8vo. pp. 614. col. pl. text-figs. London.*

HOPWORTH, HENRY HOYLE [1842–1909].
1887. The Mammoth and the Flood, etc. *8vo. pp. 32+464. London.*
A contribution to the controversial side of evolution, being 'an attempt to confront the Theory of Uniformity with the facts of recent Geology'.

HORN, CAPE.
1885–91. Mission scientifique du Cap Horn. *7 vols. in 9 and 2 pts.* Complete. *4to. See* CAPE HORN.

HORN, G.
1669. Arca Mosis sive historia mundi. *Magdeburgi.*

HORN, WILLIAM A.
1896. Report on . . . the Horn Scientific Expedition to Central Australia. . . . Edited by Baldwin Spencer. *4 vols. 4to. many pl. and text-figs. Melbourne and London.*
The report of this important natural history excursion includes a section on the Mammalia and Amphibia of the visited areas by Baldwin Spencer; Aves by A. J. North and G. A. Keartland; Reptilia by A. H. S. Lucas and C. Frost, and Pisces by A. Zietz.

HORNADAY, WILLIAM TEMPLE [1854–].
1885. Two years in the jungle; the experiences of a hunter and naturalist in India, Ceylon, the Malay Peninsula and Borneo. *8vo. pp. xxii+512. 46 pl. 2 maps. 2 figs. T. of c. append. index. New York.*

1904. The American Natural History as a Foundation of useful knowledge of the higher animals of N. America. *4to. illust. London.*

1904. Guide to the New York Zoological Park. *New York.*

1904. Two Years in the Jungle, etc. 7th ed. *New York.*

1906. Popular official guide to the New York Zoological Park. 8th ed. *8vo. pp. xiv+113. 31 figs. 3 maps. index. New York.*

1907. Camp Fires in the Canadian Rockies. *New York.*

1908. Camp Fires on Desert and Lava. *63 pl. N.Y.*

1913. Our vanishing wild life; its extermination and preservation. *8vo. pp. xv+411. 94 figs. (10 maps). index. New York.*

1914. The American natural history; a foundation of useful knowledge of the higher animals of North America. *4 vols. 8vo. 16 col. pl. 367 other illust. charts. maps. New York.*
An admirable, semi-popular treatise that includes the whole range of vertebrate zoology except the fishes.

1917. Our Vanishing Wild Life. New ed. *8vo. pp. 411. illust. New York.*

1919. Popular official guide to the New York zoological park. 16th ed. *8vo. pp. 192. 124 figs. 3 maps. T. of c. index. New York.*

1922. The minds and manners of wild animals; a book of personal observations. *pp. x+328. 22 pl. T. of c. index. New York.*

1929. Taxidermy and zoological collecting. *8vo. pp. 21+364. illust. pl. New York.*

HORNERO, EL. Revista de la Sociedad Ornithológica del Plata para el estudio y protección de las aves de la Argentina y países vecinos.
1917–30. *8vo. illust.*
As the title indicates, this scientific journal is devoted to the ornithology of Argentina and surrounding countries, substantially to a study of South American ornithology. It is issued under the auspices of the Ornithological Society of La Plata, whose President (1916–20) was Dr. Roberts Dabbene and Secretary Pedro Serie. *El Hornero* is illustrated chiefly by black-and-white reproductions of photographs.
Among the contributors are the President and Secretary of the Society as well as M. Selva, M. Doello-Jurado, H. Ambrosetti, C. S. Reed, K. Wolffhugel, J. B. Daguerre, and many others.

HORREBOW, NIELS [1712–60].
1758. The natural history of Iceland. *folio. pp. xx+207. (map fold.) T. of c. London.*
This translation from the original Danish gives a good account of the natural history of the island.

HORSBRUGH, BOYD ROBERT.
1912. The game-birds & water-fowl of South Africa. Issued in four parts. *4to. pp. xii+159. 67 pl. (col.). index. London.*

HORSFIELD, HERBERT KNIGHT.
[1923]. Side lights on birds; an introduction to the study of British bird life. *8vo. pp. 224. 18 pl. London.*

HORSFIELD, THOMAS [1773–1859].

[**1820**]. Systematic arrangement and description of birds from the Island of Java. *4to. pp. 68.* (*Linn. Soc. Trans.*, vol. 13, 1820.) *London.*

1824. Zoological researches in Java, and the neighbouring islands. *4to. pp.* (*8*)+(*318*). *72 pl.* (*64 col.*). *London.*

Originally issued in eight parts, 1821–4, with descriptions of the quadrupeds and birds.

******** and **MOORE,** FREDERIC.

1854–8. A catalogue of the birds in the museum of the East-India Company. *2 vols. 8vo.* Vol. I, *pp. xxx*+*451*+*1.* Vol. II, *pp. 453–752. London.*

For a discussion (by Zimmer) of dates of issue of this very important, fundamental work see the *Ayer Catalogue*, part 1, p. 308. The present copy is interleaved and replete with voluminous notes and added MS. papers by Frederic Moore, the junior editor—apparently for a second edition. He dates (as does the title) vol. I '1854', vol. II '1858'.

HÖRTER, J.

[**1888**]. Modell-Brieftauben-Album, Aquarellen gemalt. *See* BUNGARTZ, JEAN.

HORTLING, IVAR.

1921. Fagelstudier ute i det fria. *8vo. pp. 51. text-cuts. Helsingfors.*

A school study (in Swedish) of birds in the open by a student of the Swedish Lyceum in Helsingfors.

1929. Ornithologisk Handbok med beskrivningar över alla i Finland anträffande fågelarter, etc. *3 pts. 8vo. pp. 200. many text-figs. Helsingfors.*

This is the first part of a complete manual on Finnish birds, printed in Swedish. It closely follows Witherby's *Practical Handbook*, many of the illustrations having been borrowed from that useful work.

HORTUS (**Ortus**) **SANITATIS MAJOR.** *Garden of Health. Gart der Gesundheit.*

1497. Herbal with zoological references and illustrations. *Editio princeps* issued 1485.

The author of this extremely rare incunable—a famous faunal and floral work—is unknown. It is generally attributed to Johann de Cube (Johan Wonnecke of Caub) who certainly had some share in the production of the treatise. *See* CUBE, JOHANN DE in this Catalogue. The *Hortus Sanitatis* is often regarded as a Latin translation of the earlier German *Gart* (*Garten*) *der Gesundheit* but there are many differences in the various translations of the work that convinces one of its different character. The present copy may briefly be described as a folio (*Hortus Sanitatis Major*). 360 leaves; col. woodcuts (3 full-page, 530 plants, 164 quadrupeds, 122 birds, 106 other animals); red initials; contemporary marginal notes. *Argentorati*, J. Prüss. Fine copy. Hain—Cop. 894. First edition from the Prüss press.

1499. 3rd ed. of the Prüss press. Hain—Copinger 8943. Klebs 4, p. 28. Very rare. No copy in the Br. Mus. *Black letter. 2 cols. 55 lines. 360 leaves. 4 large woodcuts.* Johann Prüss. *Strassburg.*

The editions of Prüss, and not the original edition of Meydenbach, seem to have been the models for all the later Latin prints of the *Hortus* and its translations into French and German. The Latin work contains 1,066 chapters, i.e. more than double the number of the German *Hortus*. Large parts, as the treatises on animals, birds, and fishes, are almost unrepresented in the *Gart*, and even the section on herbs, which could have been borrowed from the German work, owes very little to it. The text of the Latin work is very different from that of the German. This Latin *Hortus* contains the following parts: Prohemium (for the most part a translation of the preface to the German work); the herbal (530 chapters); a treatise on land animals (164 chapters); a treatise on birds (122 chapters); a treatise on fishes, &c. (106 chapters); a treatise on stones and minerals (144 chapters); a treatise on urine (considerably longer than, as well as different from that of the German *Hortus*), a long therapeutical index of diseases referring separately to each division of the book, and an alphabetical index to each part.

1499. Gart der Gesundheit. *folio. 170 ll. many illust.*

The Blacker library has a damaged and incomplete copy of this German edition.

1511. Latin copy.

1517. Incomplete copy in Dean Adam's Library.

1528. A Strassburg edition in Dean Adam's Library.

1925. Reprint (facsimile) of the *editio princeps*, Peter Schoeffer, Mainz, Gart der Gesundheit, 1485. Contains also many notes with bibliography of 15th–16th-century herbals. *München.*

HOSE, CHARLES.

1893. A descriptive account of the mammals of Borneo. *8vo. pp. 78. 3 col. pl. 1 map. London.*

The value of this useful work of reference is largely due to the assistance of M. R. O. Thomas who has described the fauna.

HOSSACK, WILLIAM C.

1907. Aids to the identification of rats connected with plague in India, with suggestions as to the collection of specimens. *4to. pp.* [*4*]+*10. pl. Allahabad.*

HOSSINO.

1924–6. Arbeiten der Biologischen Station zu Hossino. *3 vols.* Text Russian and German.

HOUGHTON, WILLIAM [1825–97].

1869. Country walks of a naturalist. *12mo. pp. vi*+*154. 8 pl.* (*col.*). *46 figs. T. of c. London.*

[**1879**]. British Freshwater Fishes. *2 vols. 4to. 64 col. lith. London.*

One of many descriptive works of the kind. The author had the aid in preparing this work of a good artist, A. F. Lydon.

[**1879**]. Gleanings from the natural history of the ancients. *8vo. pp.* (*4*)+*252. 31 figs. index. London.*

HOULTON, CHARLES.

n.d. Cage-bird hybrids; directions for selection, breeding, etc. *pp.* (*2*)+*128. 31 pl.* (*16 col.*). *106 figs. index. London.*

HOUSE, CHARLES ARTHUR.

[**1909**]. Norwich canaries. *8vo. pp. 48. 5 pl. London.*

1911. Our canaries. *See* ST. JOHN, CLAUDE.

[**1919**]. Canary manual, a practical guide to the general management and breeding of canaries. 6th ed. *8vo. pp.* (*8*)+*102. 11 pl. T. of c. index. London.*

[**1923**]. Canaries. *8vo. pp. 257. 29 pl.* (*2 col.*). *73 figs. T. of c. index. London.*

Probably the most up-to-date book on the breeding, rearing, and general management of canaries.

HOUSSAY, FRÉDÉRIC.

1893. (The) industries of animals. *12mo. pp. ix*+*258. 44 figs. T. of c. append. index. London.*

The book forms vol. 23 of 'The Contemporary Science Series' edited by Havelock Ellis.

HOUTTUYN, MARTIN [1770–1829].

1761–85. Natuurlyke Historie, of uitvoerige Beschryving der Dieren, etc. *37 vols. 8vo. Amsterdam.*

This cyclopedic natural history is divided into three sections, (1) Animals, 18 parts, 1761–3; (2) plants, and (3) minerals. The Linnean system is strictly followed. The present copy does not contain the section on plants.

1772–81. *See* EDWARDS, GEORGE.

HOWARD, Henry Eliot [1873–].

1907–15. The British warblers; a history, with problems of their lives. *2 vols. 8vo.* Vol. I, *pp. xv +(1)+228. 23 pl. (col.). 35 pl. 8 pl. (col. maps). T. of c.* Vol. II, *pp. x+240. 12 pl. (col.). 16 pl. 4 pl. (maps col.). T. of c. index.* *London.*

A well-known systematic study, issued in 10 parts, and illustrated with numerous beautiful plates by Grönvold.

1920. Territory in bird life. *8vo. pp. xiii+308. 10 pl. 2 plans. T. of c. index.* *London.*

Arguments for a definite 'territory' or domain claimed by each breeding male, from which he fights off any rivals and eventually by his singing from this area attracts a partner with whom he mates and accomplishes the duties of reproduction. The same idea was independently evolved by H. Mousley in his paper *The Singing Tree* (*Auk*, 1919, pp. 339–48) which should be read in conjunction with this work.

1929. An introduction to the study of bird behaviour. *4to. pp. xi+136. 12 pl. 3 figs. T. of c. index.* *Cambridge.*

Conclusions drawn from an intensive study during the breeding season of the behavior of a Reed Bunting and a Yellow Bunting.

HOWE, Reginald Heber, *jr.* [1875–].

1896. 'Every bird;' a guide to the identification of the birds of woodland, beach and ocean. *8vo. pp. vii+195. 124 figs. append. index.* *Boston.*

1896. A list of the birds of Bristol, Rhode Island, and adjacent localities.

1897. Birds of Brookline, Mass.

**** and **STURTEVANT,** Edward.

1899. The birds of Rhode Island. *2 vols. in 1. 8vo. pp. 111. 5 pl. T. of c. 2 indexes.* *Middletown.*

An annotated list of 290 species and subspecies.

**** and **ALLEN,** Glover Morrill.

1901. The birds of Massachusetts. *8vo. pp. 154. T. of c. bibliogr. 2 indexes.* *Cambridge (U.S.A.).*

An annotated list of 362 species and subspecies accredited to the State to date, with a bibliography.

1902. Review of Perkins' List of Birds of Vermont, etc. *Longwood, Mass.*

**** and **STURTEVANT,** Edward.

1903. A supplement to the birds of Rhode Island. *8vo. pp. 24. T. of c.* *Middletown.*

Additional notes to the authors' original paper of October 1899, bringing the number of recorded species to 295, as against the 290 previously recorded.

HOWELL, Alfred Brazier.

1917. Birds of the Islands off the Coast of Southern California. (Pacific Coast Avifauna.) *4to. pp. 127. index.* *Hollywood, Calif.*

1930. Aquatic mammals. Their adaptations to life in the water. *8vo. pp. xii+338. 53 figs.* *Springfield, Ill.*

HOWELL, Arthur Holmes [1872–].

1911. Birds of Arkansas. *8vo. pp. 100. 8 pl. 4 figs. T. of c. index.* *Washington.*

Author's reprint from *Bull. Biological Survey.* An annotated list of 255 species and subspecies.

1914. Revision of the American harvest mice. (Genus *Reithrodontomys.*) *Washington.*

1918. Revision of the American flying squirrels. (North Amer. Fauna, no. 44.) *8vo. pp. 64. 7 pl.* *Washington.*

1924. Revision of the American Pikas (Genus Ochotona). (North Amer. Fauna, no. 47.) *8vo. pp. 57. 6 pl.* *Washington.*

1924. Birds of Alabama. *8vo. pp. 384. 6 pl. 31 figs. T. of c. bibliogr. index.* *Montgomery, Ala.*

A revised and extended edition of the original 1911 issue, forming the present authority on the subject.

HOWES, Paul Griswold.

1917. Tropical wild life in British Guiana. *See* Beebe, C. W.

HOWITT,

1844. Coloured Illustrations of British Oölogy. Manuscript with about 400 original colored drawings illustrating the eggs of British birds. Unique and unpublished.

The first name (and life dates) of the author-artist cannot be found. It was probably not the well-known naturalist William Howitt (1789–1877) whose wife's name was Mary.

HOWITT, Samuel [1765–1822].

1811. A new work of animals, principally designed from the fables of Aesop, Gay, and Phaedrus. *pp. (2). 56 pl.* *London.*

HOWORTH, Henry Hoyle [1842–?1912].

1887. The mammoth and the flood; an attempt to confront the theory of uniformity with the facts of recent geology. *8vo. pp. 32+464.* *London.*

HOY, Philo Romayne [1816–92].

1854. Birds of Western Missouri. (From Hoy's *Journ. of Exploration.*) Smithsonian Institution, Washington.

HRVATSKA ORNITOLOŠKA CENTRALA, GODIŠNJI IZVJEŠTAJ.

Bericht über die Tätigkeit der Hrv. Ornitološka Centrala. [Year-book of the Central (Croatian) Ornithological Society.] *8vo.* Published in Zagreb (Agram), Croatia I. Year 1900 (1901) to XVIII Year, 1918 (1919). Edited by Doctor Prof. Ervin Rossler, in Croatian and German.

The (Croatian) Central Ornithological Society is a branch of the Croatian Society of Natural History and this Year-book was issued as one of the publications of the latter.

The periodical is largely an annual review of work done by members and at Stations of the Central Ornithological Society, especially on the *migration of birds.* Supplements to the annual were published by the Editor in 1907, giving historical and other data affecting bird migration in Central Europe.

HRVATSKO PRIRODOSLOVNO DRUŠTVO U ZAGREBU. *Glasnik.*

1886–*date.* Nos. 1–5 Societas Scientiarum Naturalium Croatica.

HSIEH TÊ-YÜ [20th cent.].

1923–4. Chin shih tung wu hsüeh. Modern zoology. *2 vols. 22·5 × 16 cm.*

In the Gest Libary.

HSIEH WEI-HSIN [13th cent.].

ca. **?1500.** Ku chin ho pi shih lei pei yao. *25·7 × 17·2 cm.*

An encyclopedic work, including material on animals, birds, insects, fishes, *pieh chi.* Chüan 62–94; published in the Ming Dynasty (1368–1644).
In the Gest Chinese Library of McGill University.

HSU CHIA CH'ING. 1927. *See* Tu Ya Ts'iun.

HUBBARD, EMMA.
1895. Bird notes. *See* HAYWARD, J. M.

HUBBARD, ROSE E. [1851–?1913].
1888. Ornamental waterfowl: a practical manual on the acclimatization of the swimming birds, with description of a hundred and thirty species. *8vo. pp. vii+201.* *London.*

HUBBS, CARL LEVITT [1894–].
1918. Notes on fishes from the Athi River in British East Africa. *Chicago.*

HUBER, JEAN [1722–86].
1784. Observations sur le vol des oiseaux de proie. *4to. pp. 51. 7 fold. copper pl.* *Génève.*
The above is one of the earliest monographs on the mechanism of bird-flight (as seen in birds of prey), and for that reason is of interest to students of airmanship. The present copy is from the Ashburnham Library.

HÜBNER, ERNST.
1905. Wetterlagen und Vogelzug. *folio. pp. [102]. 4 tab.* (*Kaiserl. Leop.-Carol. Deutsche Academie der Naturforsch.* Abt. Nova Acta, vol. 84, no. 4.) *Halle.*
A rather rare excerpt, from the Cabanis-Reichenow collection, on the relation between weather conditions and avian migration, as exemplified by the wanderings in Europe of the robin redbreast.

1908. Avifauna von Vorpommern und Rügen. *4to. pp. xix+155.* *Leipzig.*
A descriptive list of 318 varieties of birds visiting the island of Rügen and the borders of Pomerania, with notes on their migration and other habits.

HUBRECHT, AMBROSIUS ARNOLD WILLEM. *See* BRONN, H. G., Die Klassen, etc., 1859–97. *Also* VETH, P., 1881–92.

HUDDERSFIELD NATURALISTS' SOCIETY. 1883. *See also* NATURALIST (THE).

HUDSON, J. D.
1920. The heron of Castle Creek, etc. *See* REES, (THOMAS) ALFRED WELLESLEY.

HUDSON, WILLIAM HENRY [1841–1922].
1888–9. Argentine ornithology. *See* SCLATER, P. L.

1892. The naturalist in La Plata. *8vo. pp. ix+388. 4 pl. 23 figs. T. of c. index.* *London.*
Some portions of this charming work had already appeared in various English magazines. The first printing of the first edition appeared in February of 1892, the present edition in June of that year.

[**1894**]. Lost British birds. *pp. 1+32. 15 text-figs.* (Society for the Protection of Birds, No. 14.) *London.*
A popular account of extinct and vanishing species of British birds. The copy in hand is an autographed presentation by the author, from the P. L. Sclater collection.

1895. British birds. *8vo. pp. 22+363. 16 pl.* (*8 col.*). *120 text-figs.* *London.*
A semi-popular handbook by this popular writer.

1898. Birds in London. *8vo. pp. xvi+339. 30 pl.* (*15 col.*). *text-figs. index.* *London.*

1901. Birds and man. *8vo. pp. 317. index.* *London.*
Partly reprints of magazine articles.

**** and **WOODROFFE**, W. L.
1902. Bird-catching. [A protest.] *pp. 4.* *London.*

[**1902**]. Feathered women. *8vo. pp. 4.* *London.*
Against the slaughter of beautiful birds for fashion's sake. It forms Leaflet No. 10 of the Society for the Protection of Birds.

[**1902**]. Osprey; or, Egrets and aigrettes. *8vo. pp. 10+(2).* *London.*

1907. *See* FOUNTAIN, PAUL.

1919. Birds in town and village. *8vo. pp. ix+274. 8 pl.* (*col.*). *T. of c.* *London.*

1919. The book of a naturalist. *8vo. pp. viii+360. T. of c. index.* *New York.*

1920. Adventures among birds. *8vo. pp. x+319. 61 figs. T. of c. index.* *New York.*
The first edition was issued, London, 1913.

1920. Birds and Man. *8vo. pp. 306. col. front. index.* *New York.*
An American edition of this well-known book.

1920. Birds of La Plata. *2 vols. 8vo.* Vol. I, *pp. xvii+244. 11 pl.* (*col.*). *T. of c. index.* Vol. II, *pp. ix+240. 11 pl.* (*col.*). *T. of c. index.* *London.*
The matter in these volumes formed Hudson's first book on bird life, written in collaboration with Philip Lutley Sclater, under the title of *Argentine Ornithology*, 1888–9. In the present work the classification, synonymy, &c. in the former work has been expunged, leaving only the account of the birds' habits as written by Hudson himself. The plates are new.

1922. A hind in Richmond park. *8vo. pp. xvi+335. T. of c.* *London.*
The last of the author's works, finished only the day before his death. It is a series of essays dealing with the author's observations on migration, sense of smell, music, and power of telepathy, &c. in birds and animals.

1922–3. Collected works. *24 vols. 8vo. portr.* *London.*
Most of this famous writer's works deal with various phases of animal life, vertebrate and invertebrate, all of them written in his usual charming style.

1923. Rare, vanishing & lost British birds, compiled from notes by W. H. Hudson, by Linda Gardiner. *8vo. pp. xix+120. 25 pl.* (*col.*). *T. of c. index.* *London.*

HUEPSCH, JOHANN WILHELM KARL ADOLPH [1726–1805].
1781. Naturgeschichte des Niederdeutschlandes und anderer Gegenden. Erster Theil. *4to. pp.* [*12*] *+44.* 'Eight plates of the 2nd pt. are said to have been pub., but no text.' (*B. Mus. Nat. Hist. Catal.*) *Nürnberg.*

HUET, JEAN BAPTISTE [1745–1811].
1829. Collection de mammifères du Muséum d'histoire naturelle de Paris. *4to. pp. 2+60. 55 pl.* (*col.*). *Paris.*
A fundamental work of reference for students of mammalian life.

HÜGEL, CARL ALEXANDER ANSELM [1796–1870].
1840–8. Kaschmir und das Reich der Siek. *4 vols. in 6. 8vo. illust. pl.* *Stuttgart.*
The zoological portion of vol. 4, pt. 2, is bound separately.

HUGHES, GRIFFITH.
1750. The natural history of Barbados. *4to. pp. 7+314. map. 30 pl.* *London.*
A standard work on the early natural history of the island.

HUGO, Thomas [1820–76].

1866. The Bewick collector. A descriptive catalogue of the works of Thomas and John Bewick. *4to. pp. 23+562. 112 cuts.* *London.*

The most complete and interesting of the Bewickiana. A supplement was published in 1868.

1866–8. The Bewick Collector, etc., with supplement. *2 vols.* *London.*

Together these volumes are occasionally issued as a second edition, although the first volume is identical with the single work of 1866.

1870. Bewick's woodcuts: impressions of upwards of two thousand wood-blocks. *folio. pp. 7+28. 247 pl. portr. See also* BEWICK, THOMAS. *London.*

HUGUES, Pietro. **1831.** *See* JACOB, N. H.

HUGUENY, C.

1890. Système de la Nature. *Paris.*

HULBERT, William Davenport [1868–1913].

1903. Forest neighbours; life stories of wild animals. *8vo. pp. 20+240. pl.* *London.*

HULL LITERARY AND PHILOSOPHICAL SOCIETY. *Hull.*

1864–5. Annual Reports.

1865–9. Annual Report and Proceedings.

1870–96? Annual Report and Transactions.

HULL SCIENTIFIC AND FIELD NATURALISTS' CLUB. *Hull.*

1898–*date*. Transactions.

HUMBOLDT, Friedrich Heinrich Alexander von [1769–1859].

1805. Versuche ueber die electrischen Fische. *8vo. pp. 25.* *Erfurt.*

**** and **BONPLAND,** A. J. A.

1805–37. Voyage aux Régions Équinoxiales du Nouveau Continent, fait en 1799–1804, etc. Text and atlases. *24 vols. 4to. and folio.* *Paris.*

The second part of this immense and extremely important work contains the papers on vertebrate zoology, mostly on the history and comparative anatomy of monkeys and reptiles—very little on birds. Baron Humboldt contributed all the (numbered) articles, except those by Baron Cuvier on the anatomy of the Axolotl, and A. Valenciennes on freshwater fishes. Bonpland's contributions were outside the region of zoology—chiefly on botany. Many supplementary works in French, German, English, &c. on the various activities of this famous expedition are in print.

**** and **BONPLAND,** A. J. A.

1815–32. Reise in d. Aeq.-Gegenden . . . d. Cont. *6 vols. 8vo.* *Stuttgart.*

Largely abstracted from these authors' *Voyage aux Régions Équinoxiales.*

1854–6. Alex. von Humboldts Reisen in America und Asien. *4 vols. in 2. See* KLETKE, H. *Berlin.*

1874. Ausgewählte Werke. *5 vols.* *Stuttgart.*

**** and **BONPLAND,** A. J. A.

1894–1900. Personal Narrative of Travels, etc. . . . 1779–1804. *3 vols.* *London.*

A recent reprint of the 1818–19 English edition. See *Br. Mus. Catalogue, Nat. Hist.*, p. 891.

1899. Beitraege . . . d. 100 jahr. Wiederkehr . . . Reise nach America. *Berlin.*

HUMBOLDT. Monatsschrift für die Gesammten Naturwissenschaften. *Stuttgart.*

1882–90. 1–5. Merged into Naturwissen. Rundschau.

HUME, Allan Octavian [1829–1912].

1869–70. My scrap book; or Rough notes on Indian oology and ornithology. *8vo.* Pt. I, No. 1, *pp. x+238.* Pt. I, No. 2, *pp. iv+239–422.* *Calcutta.*

The two numbers of part 1 contain the author's notes on the Raptores, which it was intended to complete in a further No. 3, never published.

**** and **HENDERSON,** G.

1873. Lahore to Yarkand. Incidents of the route and natural history of the countries traversed by the expedition of 1870, &c. *See* HENDERSON, G.

1873–1900. *See* STRAY FEATHERS.

1879. A rough tentative list of the birds of India. Reference edition corrected to 1st March, 1879. *8vo. pp. 78.* *Calcutta.*

A useful work of reference extracted from *Stray Feathers*, April 1879. The copy in hand is from the library of P. L. Sclater.

**** and **MARSHALL,** C. H. T.

1879–81. The game birds of India, Burmah and Ceylon. *3 vols. 4to.* Vol. I, *pp. 2+279. 45 pl. (col.). T. of c.* Vol. II, *pp. 2+264. 44 pl. (col.). T. of C.* Vol. III, *pp. 2+438. 51 pl. (col.). 4 pl. (col. eggs). T. of c. append. index.* *Calcutta.*

An admirable scientific treatise, Hume being responsible for the text, Marshall for the plates.

1889–90. The nests and eggs of Indian birds. 2nd ed. edited by E. W. Oates. *3 vols. 8vo.* Vol. I, *pp. x+397. 3 pl. 2 indexes.* Vol. II, *pp. ix+420. 3 pl. 2 indexes.* Vol. III, *pp. ix+461. 3 pl. 2 indexes.* *London.*

A second edition of Hume's *Nests and Eggs of Indian Birds, Rough Draft, 1873–75.*

HUME, George Sherwood [1893–].

1925. The Palaeozoic outlier of Lake Timiskaming, Ontario and Quebec. *8vo. pp. 4+129. illust. pl.* (Canada Geol. Survey, Memoir 145.) *Ottawa.*

HUMMER, THE. Devoted to Bird Life. Published by the Bonwell Publishing Co., Nebraska City, Neb. Editors: J. Robin Bonwell and M. A. Carrikar. Monthly. *12mo.*

Frank Burns furnishes the following notes: Vol. I, Nos. 1–9, May 20th, 1899–March 28th, 1900. 24 pp. Nos. 5/6 form a double number. (All issued.)
Among the contributors to this small sheet were J. R. Bonwell, M. A. Carriker, C. H. Sleight, and R. P. Smithwick.

HUMMING BIRD, THE. A Monthly Scientific, Artistic and Industrial Review. Edited by Adolphe Boucard. Vols. 1–5 (all issued).

1891–5. *4to* and *8vo.* Monthly (later quarterly). *London.*

This periodical is a curious but in some respects valuable *mélange* of French and English text. The Editor (who is practically the sole contributor to its columns) treats his readers to a description of the World's Fair in Chicago, to a eulogy of President Grover Cleveland, to a list of articles affected by the McKinley tariff, to lists of duplicate bird-skins for exchange, &c. In this *olla podriga* are, however, occasional instructive scientific references. The chief value of the journal lies in the publication (in full) of Boucard's well-known *Genera of Humming Birds.* It was issued as a supplement to each number (dated 1893–5), part IV, vol. V contributing, for example, pp. 203–404 for that purpose.

HUMMING BIRD, THE. Devoted to Ornithology and Oology. Edited and pub. by J. W. P. Smithwick. Sans Souci, North Carolina, U.S.A. *3×4 inches.* Vol. I, No. 1, Nov. 1890, *pp. 8* (all issued).

Frank Burns notes that an original paper on the Prothonotary Warbler was contributed by the editor to this diminutive magazine.

HUMPHREYS, S.

1740. *See* ANONYMOUS, Nature displayed.

HUNGARY. Magyar Királyi Földmivelésügyi Ministerium.

1907. The International convention for the protection of birds concluded in 1902. *See* HERMAN, OTTÔ.

HUNT, JOHN.

1815–22. British ornithology; containing portraits of all the British birds, including those of foreign origin. *3 vols. 8vo.* Vol. I, *pp. (2)+183. 34 pl. (col.).* Vol. II, *pp. (2)+365. 59 pl. (32 col.).* Vol. III, *pp. (2)+138. 99 pl. (94 col.).* *Norwich.*

The volumes in hand form a magnificent copy of this rare work. It was never completed, p. 138 of vol. III ending in the middle of a sentence, and there are 78 plates (77 col.) in that volume for which no text exists. The treatise appeared in 15 parts with 12 colored plates in each part, according to Engelmann. The original covers to parts 13 and 14 are bound in with the present copy which is from the Mullens Library. This copy has all the plates, both colored and uncolored, known to exist, and moreover has one more colored plate to vol. II than the collation given in Mullens' Bibliography, and two more plates in Vol. III than in Elliott Coues' collation. According to general opinion this copy is the finest in existence. *See* HUNT MISCELLANY.

HUNTER, JOHN [1728–93].

1786. Observations on . . . the Animal Economy. *4to.* [O. 1222.] *London.*

1837. The same, with additions and notes by Richard Owen. *8vo.* [O. 1223.] *London.*

1861. Essays and observations on Natural History. By Richard Owen. *2 vols. 8vo.* [O. 1233.] *London.*

John Hunter was a celebrated English surgeon whose radical teachings influenced scientific thought and advanced greatly the status of medicine and other departments of research.

HUNTINGTON, DWIGHT WILLIAMS [1851–?1922].

1903. Our feathered game; a handbook of the North American game birds. *8vo. pp. xii+396. 8 pl. (col.). 135 figs. 29 pl. T. of c. append. index.* *New York.*

1910. Our wild fowl and waders. *pp. v+207. 25 pl. 2 figs. T. of c. append. index.* *New York.*

Devoted entirely to the practical conservation of game.

HUNT MISCELLANY.

n.d. Comprising Autograph Letters from Captain Hugh Steuart Gladstone (11) and A. R. Grand, a grandson of John Hunt (6) concerning the collation of the scarce work Hunt's British Ornithology and Evidence concerning the birth and death of the author. Portrait of Hunt (a photographic copy of a drawing by R. Jean, 1813), uncolored plates in duplicate of the Great Auk and Black Headed Gull. Typescript Index to Text and Plates. *1 vol. 4to.*

A unique collection from the Mullens Library. *See* HUNT, JOHN.

HUPERZ, THEODOR [1825–92].

1898. Die geflügelzucht. Anleitung, durch rationelle wahl die heimische geflügelhaltung und ihre erträge zu heben. *8vo. pp. 8+283. 63 figs. in text.* *Neudamm.*

The second edition of a popular work on farmyard fowls. The first edition appeared in 1880. From the Cabanis-Reichenow collection.

HURDIS, JOHN L.

1859. The naturalist in Bermuda. *See* JONES, J. M.

1897. Rough notes and memoranda relating to the natural history of the Bermudas. *8vo.* *London.*

HURST, C. HERBERT and **MARSHALL,** A. M.

1895. A junior course of practical zoology.

This popular text-book passed through many editions. The Blacker Library has the present printing, as well as the sixth edition, 1905, and a revised edition, 1918. *See also* MARSHALL, A. M.

HUSÂMÎ.

1829. Persian Poem on the Horse. In double-col. manuscript. Black-and-red letters. *small 8vo.* Dated 1245 A.H.

Secured in Haydarabad, Deccan, by W. Ivanow for the Blacker Library. Transcriber and author unknown. It may have been copied from a lost original in Shiraz.

HUSAM U'D-DAWLAH TAYMÛR MÎRZÂ [d. 1874].

1908. The Bāz-nāma-yi nāsirī, a Persian treatise on falconry. *8vo. pp. xxiv+195. front. 24 figs. T. of c.* *London.*

This treatise on Falconry, of which the present volume is a translation by D. C. Phillott, was composed in 1868 and was originally lithographed in Teheran. A second, and perhaps a third, edition was lithographed in Bombay, a few pages on pigeons and game-fowl, apparently written in India, being added as an appendix. The present translation was made from a copy of the original Teheran edition to which marginal notes have been added by a former owner. In Persia, and around Baghdād, Taymûr Mîrzā's name is still a household word. 'Ah,' exclaim the Persians when hawking is mentioned, 'if Taymûr Mîrzā were only here.'

HUSAYN HUSAYNI TAYYIBI.

ca. **1785.** Ladhdhatu'l-hawwam. Treatise on hunting and animals. Persian MS. *8vo. 20 ff.*

Part of a rare MS. on the above subject.

HUSEN, EBBA VON.

1913. Zur Kenntnis des Pectens im Vogelauge. Inaugural-Dissertation. (Universität Tübingen.) *8vo. pp. 56. 4 pls.* *Tübingen.*

HUSS, J. A. **1822–3.** *See* THUNBERG, C. P.

HUTCHINSON, HENRY NEVILLE [1856–].

1894. Creatures of other days. *8vo. pp. xxiv+270. 23 pl. 79 figs. T. of c. 3 append. index.* *New York.*

1896. Creatures of other days, popular studies in palaeontology. *London.*

Second edition, practically identical with the first.

1896. Extinct monsters, a popular account of some of the larger forms of ancient animal life. 4th ed. *8vo. pp. 20+254.* *London.*

HUTCHINSON, HORACE G.

1924. British sporting birds. *See* KIRKMAN, F. B. B.

HUTCHINSON AND CO. (*publishers*).

[**1923–5**]. Animals of all countries. Vols. 1–4. Pts. 1–50. *4to.* *London.*

HUTCHINSON'S NATURE LIBRARY.

1894. The courtship of animals. *See* PYCRAFT, W. P.

[**1926**]. Marvels of the universe. *2 vols. 4to.* Vol. I, *pp. viii+600. 36 pl. (col., 5 of birds). 821 figs. (40 birds).* Vol. II, *pp. (16)+601–1160. 28 pl. (col., 5 of birds). 769 figs. (51 birds). T. of c.* *London.*

In process of publication; only vols. I and II to hand. These contain numerous accounts of rare or curious birds and other animals.

n.d. (The) infancy of animals. *See* PYCRAFT, W. P.

HÜTTENVOGEL (*pseud.*).

1901. Die Hüttenjagd mit dem Uhu. 2nd ed. *8vo. pp. 89. 1 pl. (col.). 77 figs. T. of c.* *Neudamm.*

Instructions to game-wardens on the use of the eagle owl (*Bubo ignavus*) as a lure for birds of prey.

HUTTON, FREDERICK WOLLASTON [1836–1905].

1871. Catalogue of the birds of New Zealand, with diagnoses of the species. (Geological Survey of New Zealand.) *8vo. pp. 10+85. index.* *Wellington.*

This rare pamphlet is the forerunner of Buller's *Manual of the Birds of New Zealand.*

******** and **HECTOR,** J.

1872. Fishes of New Zealand. *8vo. pp. xv+133. 12 pl.* *Wellington, N.Z.*

An admirable monograph on a very interesting piscine area.

1880. Zoological exercises for students in New Zealand. *12mo. pp. viii+147. T. of c. glossary. index.* *Dunedin.*

******** and **DRUMMOND,** JAMES.

1904. The animals of New Zealand; an account of the colony's air-breathing vertebrates. *8vo. pp. 15+381. 147 figs. T. of c. 4 indexes.* *Christchurch, N.Z.*

1904. Index faunæ Novæ Zealandiæ. Published for the Philosophical institute of Canterbury, New Zealand. *8vo. pp. viii+372. T. of c. append. index.* *London.*

Birds are treated on pp. 27–39, and a list of naturalized, introduced species, that have become so well established that they may be considered as part of the fauna. A bibliography is included, pp. 21–3. The present copy is a presentation to Dr. Casey Wood from James Drummond with autographed letter inserted.

HUXLEY, JULIAN SORELL [1887–].

1923. Essays of a biologist. *8vo. pp. xv+306. T. of c. bibliogr.* *London.*

1926. Essays in popular science. *8vo. pp. xii+307. 5 pl. 20 figs. T. of c. index.* *London.*

Articles from various magazines revised. One relating to birds, *Birds and the Territorial System,* discusses Eliot Howard's *Territory in Bird Life.*

HUXLEY, THOMAS HENRY [1825–95].

1863. Evidences of Man's Place in Nature. *8vo. pp. 159. 1 pl. figs. in text.* *London.*

One of the earliest and most famous of this celebrated author's works on biology.

1864. An elementary atlas of comparative osteology. *folio. 12 pl.* *London.*

1864. Lectures on the elements of comparative anatomy. On the classification of animals and on the vertebrate skull. *8vo. pp. xi+303. 111 figs. T. of c.* *London.*

1868. On the classification of birds; and on the taxonomic value of the modifications of certain of the cranial bones observable in that class. *8vo. pp. 60. illust.* (Zoological Soc. of London, Proc., May 14, 1868.)

1869. An introduction to the classification of animals. *8vo. pp. (8)+147. 47 figs. T. of c. glossary.* *London.*

An important and fundamental work of reference.

1871. A manual of the anatomy of vertebrated animals. *8vo. pp. 431. 110 figs. T. of c. index.* *London.*

An important systematic treatise. Two other editions appeared, (1872 and 1878), without essential alterations.

1872. A manual of the anatomy of vertebrated animals. *8vo. pp. 431. 110 figs. T. of c. index.* *New York.*

1878. A manual of the anatomy of vertebrated. animals. *8vo. pp. 431. 110 figs. T. of c. index.* *New York.*

1882. Lectures on evolution: with an appendix on the study of biology. *8vo. pp. 48. 9 figs. T. of c.* *New York.*

Lectures delivered during 1876 in New York and London.

1884. Animal automatism and other Essays. *New York.*

1893. Evolution and Ethics. The Romanes lecture. *8vo.* *London.*

1898–1902. The scientific memoirs of Thomas Henry Huxley, ed. by Professor Sir Michael Foster . . . and Professor E. Ray Lankester. *4 vols. 4to.* Vols. I–IV, *pp. lii+2,529. 4 front. (portr.). 129 pl. 2 maps (fold., 1 col.). T. of c.* *London.*

1899. Darwiniana; essays. *pp. 10+475.* *London.*

1901–11. Collected Essays. *9 vols. 8vo.* *London.*

HYATT, ALPHEUS [1838–1902]. **1868.** *See* AMERICAN NATURALIST.

ÎAROSLAVSKOE ESTESTVENNO-ISTORICHESKOE OBSHCHESTVO. (*Société des Naturalistes de Jaroslaw.*)

1908–19. Otchet.

1902–22? Trudy.

(**THE**) **IBIS, a magazine of general ornithology.** Organ of the British Ornithologists' Union. *6 vols. in each series. 8vo.* *London.*

1859–64. [First series.]

1865–70. New series.

1871–6. 3rd series.

1877–82. 4th series.

1883–8. 5th series.

1889–94. 6th series.

1895–1900. 7th series.

1901–6. 8th series.

1907–12. 9th series. 1–6 and jubilee supplement.

1913–18. 10th series. 1–6 and jubilee supplement.

1919–24. 11th series.

1925–6. 12th series.

1927–*date*. 13th series.

1879–1916. Index of genera and species referred to, and index of the plates, ser. 1–9. 1859–1912. *3 vols. 8vo.* *London.*

1859–94. General subject index, ser. 1–6. *1 vol. 8vo.* *London.*

Ibis is not only the oldest British, current magazine devoted to Ornithology but it is the premier publication of its kind in the English language; indeed it may be truthfully said that it is now, and long has been, the most practical and the best-edited ornithological periodical in any language. To its columns for over sixty years the flower of British ornithologists have contributed of their best, while the editors though few in number have been counted among the most distinguished naturalists of their day. The first of these well-known editors was Alfred Newton (1865–70); Osbert Salvin (1871–6); Osbert Salvin and P. L. Sclater (1877–82); P. L. Sclater and H. Saunders (1883–8); P. L. Sclater (1889–94); P. L. Sclater and H. Saunders (1895–1900); P. L. Sclater and A. H. Evans (1901–12); W. L. Sclater (1913–18); W. L. Sclater (1919–27); W. L. Sclater and H. C. Robinson (1927–30); W. L. Sclater (1930). The list of contributors to this quarterly constitutes a roster of the most brilliant and versatile ornithologists of Great Britain and to a considerable extent of the English-writing authorities on bird life in other countries; and it may be added that much, in many instances all, of the matter in several monographs and text-books (including the illustrations) has been compiled from its pages. Under its present management—editorial and other—it bids fair to increase rather than diminish its reputation and to make more secure its dominant position in the world of ornithological literature.

IBRĀHĪM B. 'ABDI'L-JABBĀR AL-KATIB AL-BAGHDĀDĪ.

ca. **1490.** [A supplement to the Nuzhat-nāma-i-'Alā'ī (q.v.).]

W. Ivanow notes in a personal communication to the Compiler that this unique MS., from the Blacker Library and bound with the McGill copy of the Nuzhat-nāma, is the product of an unknown writer living or born in Bagdad. It is an illustrated treatise dealing with zoological and other more or less related subjects and is of considerable interest for the natural history student since, with the two manuscripts that accompany it, it is intended to complete a study of Persian zoology as it was understood during medieval times. The caligraphy is good and the pictures fairly well drawn. *See also* NUZHAT-NĀMA, 1404.

IHERING, HERMANN VON [1850–?1921].

1885. Die Vögel Umgegend von Taquara do Mundo novo, Provinz Rio Grande do Sul. *8vo. pp. 2+88. pl.* (Zeitschrift für die gesammte Ornithologie, 1885.) *See also* BERLEPSCH, HANS VON. *Budapest.*

1899. As Aves do Estado de S. Paulo. *8vo. pp. 113–476. index.* *São Paulo.*

A systematic catalogue (with separate title and wrapper) of the State of São Paulo, Brazil, listing 590 species, with their synonymies, vernacular and zoological names, characters, distribution, and an account of their habits; a companion volume to the author's treatise, *As Aves do Estado do Rio Grande do Sul.*

******** and **IHERING,** RODOLPHO VON.

1907. As aves do Brazil. *8vo. pp. 38+485. 3 col. maps. text-figs.* *São Paulo.*

Probably the most useful of all the treatises on the birds of Brazil, in which several species new to science are described. Altogether over 1,150 varieties are listed, most of them briefly treated; others at greater length, giving the usual information furnished by a systematic review.

1907. Catalogos da fauna Brazileira. *See* MUSEU PAULISTA.

IHERING, RODOLPHO VON and **IHERING,** H. VON.

1907. As aves do Brazil. *See* IHERING, H. VON.

1907. Catalogos da fauna Brazileira. *See* MUSEU PAULISTA.

IHLE, JOHAN EGBERT WILLEM [1879–] and others.

1927. Vergleichende anatomie der wirbeltiere. *8vo. 987 illust.* *Berlin.*

A recent, comprehensive and valuable review of vertebrate anatomy by several German specialists.

'ILAJU'L-BAHĀ'IM. Hindustani lithogram.

1873. A treatise on the diseases of Animals. *8vo. pp. 94. index and decorated title-page.* *Haydarabad, Deccan.*

This is an edition of a popular work, several examples of which were procured in India by W. Ivanow for the Blacker Library. Among the copies is an 1888 printing done in Cawnpore.

1888. On the treatment of disease in Animals. *8vo. pp. 96. index.* Lithograph copy of an old Hindustani MS. *Lucknow.*

Purchased in Haydarabad, Deccan, by W. Ivanow for the Blacker Library. The original (no author, no scribe) is a rarity. The lithogram is published by one of the innumerable 'presses' of India that spring up here and there and last through all periods from a month to a decade and then fade away. Many of them, however, do good work in reproducing valuable manuscripts, some of which are subsequently lost through neglect, fire, &c. An earlier edition (q.v.) of the foregoing appeared in 1873.

ILES, GEORGE [1855–].

1902. The Literature of American History: A Bibliographical Guide, edited for the American Library Association by Josephus Nelson Larned. *Boston.*

It contains 4,100 titles, chosen and annotated by 40 leading students in the field of American History, and furnishes a model for similar *catalogues raisonnés* in all departments of science.

ILLIGER, JOHANN KARL WILHELM [1775–1813].

1811. Caroli Illigeri . . . Prodromus systematis mammalium et avium; additis terminis zoographicis utriusque classis, eorumque versione germanica. *12mo. pp. 18+301.* *Berlin.*

An abridged English translation of this important tract was made by T. E. Bowdich, 1821.

ILLINOIS AUDUBON SOCIETY. Audubon bulletin.

1916–30. *8vo. illust.* *Chicago.*

This well-edited journal contains many valuable notes on the birds of the middle-west of the United States and lends an effective hand to the work of avian culture and protection. It is usually published three times yearly, about 50 pages each issue.

1922. Check list of the birds of Illinois, together with a short list of 200 commoner birds and Allen's Key to birds' nests. *See* GAULT, B. T.

ILLINOIS MUSEUM OF NATURAL HISTORY. *See* ILLINOIS STATE LABORATORY OF NATURAL HISTORY.

ILLINOIS NATURAL HISTORY SOCIETY. *Springfield.*

1861. Transactions. No. 1 (all pub.).

ILLINOIS STATE ACADEMY OF SCIENCE.

1907–*date*. Transactions.

ILLINOIS STATE HORTICULTURAL (AGRICULTURAL) SOC.

1853–70. Transactions.

Largely devoted to zoological matters.

ILLINOIS STATE LABORATORY OF NATURAL HISTORY. *Urbana.*

1876–1917. Bulletin. Continued as the Natural History Survey.

ILLINOIS STATE MUSEUM OF NATURAL HISTORY. *Springfield.*

1876–97. Bulletin.

1898. Biennial Report.

ILLINOIS UNIVERSITY. Zoological Laboratory.

1910–*date.* Contributions.

ILLUSTRIERTE NATURGESCHICHTE ... DER SÄUGETHIERE, VÖGEL, AMPHIBIEN, FISCHE, etc.

1857. *4 vols. 12mo. 64 pl.* *? Berlin.*

ILLUSTRIERTE NÜTZLICHE BLÄTTER. *Vienna.*

1891–*date.* Continues Naturfreund.

ILLUSTRIERTES JAHRBUCH DER NATURKUNDE.

1903–10. Vols. I–VIII. *Leipzig.*

IMLAY, GEORGE [*fl.* 1755–96].

1793. G. Imlay's Nachrichten von dem westlichen Lande der Nordamerikanischen Freistaaten, von dem Klima, den Naturprodukten . . . des Staates Kentucky. In Briefen an einen Freund in England. Aus dem Englischen uebersetzt . . . von E. A. W. Zimmermann [Professor in Brunswick]. *8vo. pp. 16+168.* *Berlin.*

This rather rare and, from the standpoint of the naturalist, important contribution to *fauna americana*, is the German edition of G. Imlay's *A Topographical Description of the Western Territory of North America*, London, 1792. On pp. 148–52 is a descriptive list of 42 mammals, and on pp. 153–9 we are furnished with a numbered catalogue (with a description) of 109 species of birds. For many other reasons these letters 'from Kentucky to a friend in England' are of deep interest to all Americans. The translator is (naturally) often at a loss for a German equivalent for several local names. Thus he says (p. 159): 'Was der "Canvass back" für ein Vogel sey, habe ich nicht auffinden können.' Altogether the translator's notes are quite as entertaining as the Imlay original.

IMPERATO, FERRANTE [1550–1625].

1599. Dell' historia naturale, libri XXVIII. *4to. pp. 24+791. illust. pl.* *Napoli.*

The first edition of an important work on natural history.

IM THURN, EVERARD FERDINAND [1852–].

1870. Birds of Marlborough. *8vo. pp. 117. append. index.* *Marlborough.*

A popular account of the birds of the district. The appendix gives tables of first dates of oviposition and arrival during the years 1865–9.

INDIA. Marine Survey.

1892–1908. Illustrations of the zoology of H.M. Indian marine surveying steamer 'Investigator', pts. 1–12. *4 vols. folio. 155 pl.* *Calcutta.*

One part is devoted to Fishes, illustrated by 43 plates.

1892–1909. Illustrations of H.M. Indian Marine Surveying Steamer 'Investigator', etc. *4 vols. 4to.* *Calcutta.*

A series of plates, of which only one collection illustrates vertebrate zoology, viz. Fishes (1892–1908), 43 pl. A second printing?

INDIANA ACADEMY OF SCIENCE. *Brookville.*

1891–*date.* Proceedings.

INDIANA UNIVERSITY. Biological Station.

1895–1902. Reports, Nos. 1–2 (all pub.).

INDIANA UNIVERSITY. Zoological Laboratory.

1891–1930. Contributions.

INDIAN ANNALS AND MAGAZINE OF NATURAL SCIENCE. 1887. (All pub.) *Bombay.*

INDIAN MUSEUM, CALCUTTA.

1881–91. Catalogue of mammalia in the Indian museum, Calcutta, by John Anderson and W. L. Sclater. *2 vols. 8vo. See also* CALCUTTA.

1889–1930. Indian Museum Notes.

1891. List of snakes in the Indian museum, by W. L. Sclater. *8vo. pp. 10+79.* *Calcutta.*

1892. List of the *Batrachia* in the Indian museum. By W. L. Sclater. *8vo. pp. viii+43.* *London.*

1901. List of the birds in the Indian museum. Pt. 1. By Frank Finn. *8vo. pp. xv+115. 2 append. index.* *Calcutta.*

1907–*date.* Records. (A Journal of Indian Zoology.)

1907?–16. Report—Zoological and Anthropological Section.

1907–18. Memoirs.

INDO-CHINA, FRENCH. Mission Scientifique permanente, etc.

1905–*date.* Décades Zoologiques. *8vo.* *Hanoï.*

The Mission has issued from time to time fascicles of monographs on vertebrate zoology well illustrated by colored plates. So far the mammals, birds, and reptiles of French Indo-China have been in part catalogued and described.

INGERSOLL, ERNEST [1852–].

1878. Upland game birds and water fowl of the United States. *See* POPE, A.

1881. Friends worth knowing; glimpses of American natural history. *8vo. pp. 8+258. 13 pl. 38 figs. T. of c. index.* *New York.*

1883. Birds'-nesting: a handbook of instruction in gathering and preserving the nests and eggs of birds for the purposes of study. *8vo. pp. xi+110. 16 figs. T. of c. index.* *Boston.*

1906. Life of Animals. The Mammals. 1st ed. *15 col. pl.* *New York.*

1907. Life of Animals. The Mammals. 2nd ed. *New York.*

An excellent, popular work.

1907. The Wit of the Wild. *8vo.* *London.*

1913. Animal Competitors, etc. . . . 4-footed tenants of the Farm. *12mo. illust.* *New York.*

1914. Alaskan bird-life as depicted by many writers. *8vo. pp. 72. 13 pl. (6 col.). 6 figs. T. of c. index.* *New York.*

1916. Primer of bird-study; a simple account of the structure and functions of birds. *8vo. pp. 24. 7 figs. in text.* *New York.*

1923. Birds in legend, fable and folklore. *8vo. pp. v+292. T. of c. bibliogr. index.* *New York.*

A valuable and interesting work in which the author has brought together a surprising amount of information.

?1929. Dragons and Dragon Lore, with a foreword by Henry Fairfield Osborn.

INGLIS, C. M. and **FLETCHER**, T. B.
1924. Birds of an Indian garden, &c. *See* FLETCHER, T. B. and INGLIS, C. M.

INGOLF-EXPEDITION.
1899. *6 vols. 4to. illust.* *See* DENMARK, 1899. *Copenhagen.*

INGRAM, COLLINGWOOD [1880–].
1926. The birds of the Riviera; being an account of the Côte d'Azur from the Esterel mountains to the Italian frontier. *8vo. pp. 15+155. 5 pl. figs. in text. index.* *London.*

INNSBRUCK. Zoologisches Institut.
1923–*date.* Arbeiten.

INSTITUCIÓ CATALANA D'HISTÒRIA NATURAL. *Barcelona.*
1901–3. Bulletí. Series 1.
1904–17. „ „ 2.
1918–20. „ „ 3.
1921–*date.* „ „ 4.
1912–13? Memories.
1915–*date.* Treballs.

INSTITUTE OF JAMAICA. *Kingston.*
1897. Annals.
1879–1902. Annual Report.
1892. Bulletin.
1899. Journal.
—— Popular lectures.
1891–3. Special Publications.

INSTITUTE OF NATURAL SCIENCE, HALIFAX, N.S. *See* NOVA SCOTIAN INSTITUTE OF SCIENCE.

INSTITUT DE FRANCE (PARIS). Académie des sciences.
1846. Annuaire.
1917–*date.* Annuaire.
1835–*date.* Comptes rendus hebdomadaires des séances.
1856–61. Comptes rendus, etc. Supplément.
1761–88? Description des arts et métiers.
1796–1815. Mémoires (1–14).
1816–*date.* Mémoires.
1795–*date.* Procès-verbaux des séances de l'Académie tenues depuis la fondation de l'Institut jusqu'àu mois d'août 1835.

INSTITUT GRAND-DUCAL DE LUXEMBOURG. Section des Sciences Naturelles et Mathématiques.
1853–1904. Archives Trimestrielles.
1906–*date.* Archives Trimestrielles. New series.
1891–*date.* Bulletin Mensuels.

INSTITUTO ESPAÑOL DE OCEANOGRAFÍA. *Madrid.*
1916–*date.* Memorias.
See also BOLETÍN DE PESCAS.

INSTITUTO ZOOLOGICO, PALERMO.
1918–*date.* Bullettino.

INSTITUT ZOOLOGIE DE LILLE. *See* WIMEREUX, STATION ZOOLOGIQUE.

INSTITUT DE ZOOLOGIE DE MONTPELLIER. *See* MONTPELLIER.

INTELLECTUAL OBSERVER. *London.*
1862–8. *See also* RECREATIVE SCIENCE, and STUDENT AND INTELLECTUAL OBSERVER.

INTERNATIONAL CATALOGUE OF SCIENTIFIC LITERATURE.
1901–*date.* The Royal Society, London.
Seventeen sections of this monument of scientific industry are published annually, sections G–R being devoted to the biologic sciences. Each volume is provided with full author and subject indexes. It is really an extended continuation of the series known as the Royal Catalogue of Scientific Papers. The Zoological Section now appears (annually) in conjunction with the Zoological Record, and is published in two forms.

INTERNATIONAL COMMITTEE FOR BIRD PROTECTION.
Bulletin I–II. *See* PEARSON, T. GILBERT; and AUDUBON SOCIETIES, NAT. ASSOC. OF.

INTERNATIONAL CONGRESS OF ORNITHOLOGY. *See* CONGRESS, INTERNATIONAL, OF ORNITHOLOGY.
Mr. H. W. England, Librarian of the Zoology section of the British Museum, South Kensington, believes *Congress* to be the best 'catchword' or main title for the *Berichte, Comptes rendus, Proceedings, Reports, Transactions, Versammlungen, Rapports, &c.* of this and similar series. In deference to the opinion of this authority these headings have been cross-referenced to *Congress*, and the whole subject treated under that caption.

INTERNATIONAL CONGRESS OF ZOOLOGY, 1ST, Paris, 1889.
1889. Compte-rendu des séances; pub. par Raphaël Blanchard. *4to. pp. 22+513. illust. pl.* *Paris.*

******, 3RD, Leyden, 1895.**
1896. Compte-rendu des séances; pub. par P. P. C. Hoek. *4to. pp. 543. illust. pl. tab.* *See also* CONGRESS, INTERNATIONAL, OF ZOOLOGY. *Leyden.*

INTERNATIONAL CONVENTION FOR THE PROTECTION OF BIRDS. *See* HERMAN, OTTÓ, 1907.

INTERNATIONAL DICTIONARY FOR NATURALISTS AND SPORTSMEN, IN ENGLISH, FRENCH, AND GERMAN. *See* SIMPSON-BAIKIE, EDWIN, 1878–9.

INTERNATIONALER CENTRALANZEIGER FÜR GEFLÜGEL- UND VOGELZUCHT. *Leipzig.*
1894. I. Jahrgang.
A reference to this journal will be found in *Ornitholog. Monatsbericht*, ii, 1894, p. 46.

INTERNATIONALER FRAUENBUND FÜR VOGELSCHUTZ (Deutsche Abteilung). *See* JAHRBUCH DES INTERNATIONALEN FRAUENBUNDES, etc.

INTERNATIONAL FISHERIES EXHIBITION, 1883.
1884. Handbooks, Essays, Offical catalogue, etc. *14 vols. 4to.* *London.*

INTERNATIONAL LIBRARY OF PHYSIOLOGY, PHILOSOPHY AND SCIENTIFIC METHOD.

1928. How animals find their way about. *See* RABAUD, ÉTIENNE.

INTERNATIONAL NATURALIST. 1891–2. *Canisteo, N.Y.*

INTERNATIONAL POLAR EXPEDITION.

1885. Report of the International polar expedition to Point Barrow, Alaska. *pp. (2)+695. front. (col.). 24 pl. (2 col., birds). 1 map (fold.). 10 figs. T. of c. index. Washington.*

A full report of the operations of this (U.S. Government) expedition for the years 1881, 1882, and 1883. The section (part IV) relating to mammals, birds, and fishes was written by John Murdoch, the naturalist to the expedition.

1888. Report on the proceedings of the United States expedition to Lady Franklin Bay, Grinnell Land, by Adolphus W. Greely . . . commanding the expedition. *Washington.*

INTERNATIONAL SCIENTIFIC SERIES, THE.

1874. Animal mechanism. *See* MAREY, ÉTIENNE JULES.

1874. Animal locomotion. *See* PETTIGREW, J. B.

The fourth edition was published in 1891.

1881. The natural conditions of existence as they affect animal life. *See* SEMPER, CARL GOTTFRIED.

1887. The geographical and geological distribution of animals. *See* HEILPRIN, A.

A second edition appeared in 1894.

1890. Colours of animals. *See* POULTON, E. B.

1895. Animal Movement. *See* MAREY, ÉTIENNE JULES.

1908. On the senses, instincts, and intelligence of animals. *See* LUBBOCK, *Sir* J., *Bart.*

INTERNATIONAL ZOOLOGICAL CONGRESS.

The proceedings of the various Congresses were published, as a rule, the same year the meetings were held. The latter took place as follows: First session, Paris, 1889; Second Session, Moscow, 1892; Third Session, Leyden, 1895; Fourth Session, Cambridge, 1898; Fifth Session, Berlin, 1901; Sixth Session, Berne, 1904; Seventh Session, Boston, 1907; Eighth Session, Gratz, 1910; Ninth Session, Monaco, 1913. The meetings were then interrupted by the Great War and its aftermath. *See also* CONGRESS, INTERNATIONAL, OF ZOOLOGY, and CONGRÈS.

(AN) INTRODUCTION TO THE STUDY OF BIRDS. 1835. *See* ANONYMOUS.

'INVESTIGATOR', H.M.I.M.S.S. *See* INDIA, MARINE SURVEY, 1892–1909.

INVESTIGATOR MARINE SURVEY EXPEDITION. *See* ALCOCK, A. W., 1902.

IOWA ACADEMY OF SCIENCES, DES MOINES.

1887–*date.* Proceedings.

IOWA NATURALIST. *Iowa City.*

1905–17. Vols. I–III, 2 (all pub.).

IOWA ORNITHOLOGIST, THE.

1894–1900. *8vo and 4to. Salem, Ia., and Avoca, Ia.* Organ of the Iowa Ornithological Association from Oct. 1894 to July 1898.

Vols. 1–4 (Oct. 1894–July 1898) title reads: Iowa ornithologist; a quarterly magazine devoted to ornithology and oology. Published quarterly, with wrappers. Edited by David Savage. Publication suspended 1899.

Vol. 5 (Jan.–June 1900) title changed to Western Ornithologist. Published bi-monthly, edited by C. C. Tryon, with F. C. Hanning and D. L. Savage, associate editors. No more published.

In addition to the editorial staff, M. E. Peck, B. H. Wilson, J. N. Clark, William Savage and other writers contributed papers to this short-lived but excellent journal. Continued as *The Bittern* (Cedar Rapids, Ia., 1900–1).

IOWA STATE UNIVERSITY. Studies in Natural History.

1888–1918. Vols. 1–7. Contd. as Bulletin from the Laboratories of Nat. Hist. (All pub.?)

This is a periodical of much importance for students of the natural history of the midwestern United States.

IRAQ.

1923. Survey of the Fauna of Iraq.

IRBY, LEONARD HOWARD LLOYD [1836–1905].

1875. The ornithology of the straits of Gibraltar. *8vo. pp. (4)+236. 2 maps (fold.). index. London.*

A second edition with colored plates was issued in 1895.

1892. British birds: key list. 2nd ed. *8vo. pp. iv +69. 2 diagr. index. London.*

1895. The ornithology of the Straits of Gibraltar. 2nd ed. *4to. pp. 6+326. 14 pl. (8 col.). 21 text-figs. 2 fold. maps. index. London.*

This edition is much the same as the 1875 printing. The colored plates by Thorburn and Smit are very fine.

IREDALE, TOM [1880–] and **MATHEWS,** G. M.

1921. A Manual of the Birds of Australia. *See* MATHEWS, G. M. and IREDALE, TOM.

IRISH ACADEMY, ROYAL. *Dublin.*

1880–*date.* Cunningham Memoirs.

1836–69. Proceedings. Series 1.

1870–88. Proceedings. Series 2.

1888–1901. Proceedings. Series 3.

1902–*date.* Proceedings. Series 4.

1882–*date.* Todd Lecture Series.

1787–1906. Transactions.

IRISH NATURALIST. 1892–1924. *Dublin.*

IRISH NATURALISTS' JOURNAL.

1928–*date.* Vols. I–III. Monthly.

This is a vigorous periodical with numerous papers on bird life.

IRKUTSKOE OBSHCHESTVO ESTESTVOISPYTATELEĬ.

1923–*date.* Trudy. French title: Société des Naturalistes d'Irkoutsk.

ISIDORUS, SAINT, *Bishop of Seville.*

1472. Etymologiae. *folio. 264 ll.* Printed by Günther Zainer. 2 cols. in table; 38 lines; roman characters. In the Osler Library. Hain *9273; Proctor 1532. [*Ausgburg.*]

A very rare and interesting incunable, the first work printed in Roman letters in German. Liber XX, Cap. 12, is entirely devoted to animals, giving an account of the zoology of the ninth and tenth centuries.

1493. Etymologiae; de summo bono. *small folio. 100 ll.*; gothic characters. Produced for Octavianus Scotus by Bonetus Locatellus. Dec. 11, 1493. Proctor 5049. *Venetiis.*

In the Osler Library. Books 4 and 11 treat to some extent of comparative anatomy.

ISIS. 1913–*date.* *Brussels, Bern.*

ISIS. 1850. *Munich.*

ISIS, oder Encyclopaedische Zeitung von Oken.

1817–48. *41 vols. 4to.* Inhalt. 1817–26. Bd. I–XIX. Allgemeines Register. 1827–36, Bd. XX–XXIX and 1837–46, Bd. XXX–XXXIX. *Jena.*

One of the most important and, in its complete state, one of the rarest of the early magazines on natural history.

ISIS. Maandschrift voor Natuurwetenschap. *Haarlem.*

1827–81. Vols. 1–10 (all pub.).

ISIS. Zeitschrift für alle Naturwissenschaftliche Liebhabereien. 1876–99. *Berlin.*

ISLE OF MAN NATURAL HISTORY AND ANTIQUARIAN SOCIETY. *Douglas.*

1880–1906. Proceedings.

1906–*date.* Proceedings. New Series.

(R.) ISTITUTO LOMBARDO DI SCIENZE E LETTERE. *Milan.*

1858–63. Atti.

1841–7. Giornale.

1843–56. Memorie. Series 1.

1859–65. Memorie. Series 2.

1866–*date.* Memorie. Series 3.

1864–7. Rendiconti. Series 1.

1868–*date.* Rendiconti. Series 2.

ITEMS OF INTEREST.

? 1920–30. Published monthly by the Division of Ornithology, Dept. of Agriculture, Commonwealth of Mass., E. H. Forbush, Director. Mimeographed. Nos. I–XXXVII and continuation, pp. 3–6.

These notes are, naturally, descriptive of local avifauna, but often contain valuable records of migration, bird-banding, and other activities outside the State of Massachusetts.
For a time *Notes for observers [in Ornithology]* (q.v.) was published as a supplement, but issued separately on the 15th of the month.

IVY, ROBERT H. and **HAAGNER,** A.

1908. Sketches of South African bird-life. *See* HAAGNER, A. and IVY, R. H.

JAARBERICHT VAN DE CLUB VAN NEDERLANDSCHE VOGELKUNDIGEN.

1911–30. *8vo. T. of c.* *Deventer, Holland.*

The Club was organized in May 1911 at Neerlangbrock (Province of Utrecht) with Baron R. Schouckaert van Schauburg as President. The periodical concerns itself not only with the activities of the society and with local ornithology but contains reviews of books, scientific papers on colonial (especially Javanese) bird life, on general ornithology, and on other matters by Dutch ornithologists. The plates are not numerous but are unusually well executed.

JAARBOEK DER NEDERLANDSCHE ORNITHOLOGISCHE Vereeniging. Continuation of the Verslagen en Mededeelingen of the Nederlandsche Ornithologische Vereeniging.

1910. No. 7. Sept. *pp. 133.*

1911. No. 8. Dec. *pp. 132.* (All pub.)

These two volumes, devoted chiefly to the activities of the Dutch Ornithological Society, are intermediate publications joining the *Verslagen en Mededeelingen* with *Ardea*, the latter the current organ of the society.
The *Jaarboek* contains important papers by van Oort, van Pelt Lechner, and other well-known Dutch Naturalists. *See* ARDEA.

JAARBOEK VAN DE NEDERLANDSCHE VEREENIGING TOT BESCHIRMING VAN VOGELS.

1904–12. Nos. 1–8 (all issued?).

This periodical is the Year-book of the Dutch Society for the Protection of Birds. It has, of course, no direct connexion with the *Nederlandsche Ornithologische Vereeniging*, or with the periodical publications of that society.

JABOUILLE, PIERRE. **1925.** *See* DELACOUR, JEAN THEODORE.

JACK, ROBERT LOGAN [1845–?1918] and **ETHERIDGE,** ROBERT.

1892. Geology and palaeontology of Queensland and New Guinea. Vols. 1–2. *8vo. pl. map.* *Brisbane.*

JÄCKEL, ANDREAS JOHANNES.

1856. *See* MÜHLE, HEINRICH GRAF VON DER.

1891. Systematische Uebersicht der Vögel Bayerns. *8vo. pp. 24+392. portr. T. of c.* *Munich.*

Professor Rudolf Blasius edited this posthumous treatise on the birds of Bavaria. It is, in particular, a valuable contribution to the distribution and migration of local avifauna. The volume in hand is a presentation copy from Blasius to J. A. Allen.

JACKSON, ANNIE C.

1920. (A) practical handbook of British birds. *See* WITHERBY, H. F.

JACKSON, FREDERICK JOHN [1860–].

1926. Notes on the game birds of Kenya and Uganda. *8vo. pp. xv+258. 13 pl. (col.). T. of c.* *London.*

The species are arranged according to Sharpe's *Hand-list*, and the nomenclature follows W. L. Sclater's *Systema Avium Ethiopicarum*, the latest work on the subject.

JACKSON, H. H. T.

1915. A review of the American moles. (North Amer. Fauna, no. 38.) *8vo. pp. 100. 6 pl. 27 figs.* *Washington.*

1928. A taxonomic review of the American long-tailed shrews (Genera Sorex and Microsorex.) (North Amer. Fauna, no. 51.) *8vo. pp. 238. 13 pl. 24 figs.* *Washington.*

JACKSON, V. W.

[1920]. The value of birds to agriculture. *See* CANADA. DOMINION PARKS BRANCH.

JACKSON, WILLIAM HATCHETT.

1888. Forms of animal life. A manual of comparative anatomy. *See* ROLLESTON, G.

JACOB, NELLIE D.
[1879]–86. Illustrations of the nests and eggs of birds of Ohio with text. *See* JONES, H. E.

JACOB, NICHOLAS HENRI [1781–1871], and **HUGHES,** PIETRO.
1812. Storia Naturale delle Scimie. *folio. 88 pl.* *Milan.*

The (rare) first edition of an important treatise.

1831. Storia naturale delle scimie e dei maki. Parte I: Scimie dell'antico continente. Parte II: Scimie del nuovo continente. *folio.* *Milano.*

A rare and important treatise, illustrated by half-page copper plates of Old and New World monkeys. In this edition the first or introductory plate is signed 'N. H. Jacob inv. e dis.', the second 'N. E. Jacob inv. e dis.'. See *Cat. Br. Nat. Mus. History*, p. 916. The copy in hand has not only the Italian but the corresponding German and French text.
The first part has 74 plates, the second 15. The first edition (1812) of this work was issued jointly by the artist, N. H. Jacob, and the publisher P. Hughes. Only two plates are signed—by N. E. and N. H. Jacob. The second edition is dated Milan, 1817, and on the title-page only the name of Hughes appears. There is also, similarly treated, an 1823 edition.

JACOBAEUS, OLIGERUS [1650–1701].
1710. Museum regium, seu Catalogus rerum tam naturalium, quam artificialium, etc. *folio. ff. 260. pl. 56.* *Hauniae.*

A catalogue of natural history objects and antiquities in the Royal Museum at Copenhagen. Among the numerous illustrations are copies of the Lemming and the Loon from the Museum Wormianum. In the figure of the loon, the bill is curved and shortened to accommodate it to the plate.
The original leather binding has the royal crown of Denmark impressed upon it.

JACOBI, ARNOLD [1870–].
1919. Tiergeographie. *12mo. pp. 153. map. index.* *Berlin.*

A study in zoogeography, including that of birds; with their distribution.

JACOBS, FRIDERIC. *See* AELIANUS, 1832.

JACOBS, J. W.
1895. Eggs of Native Pennsylvania Birds. *8vo.* *Waynesburg.*

1898–1910. Gleanings from Nature. Nos. 1–5. Two supplements. *Waynesburg.*

1905. Notes . . . Summer Birds in Monongalia Co. *Waynesburg.*

JACQUE, CHARLES ÉMILE [1813–94].
[18 ?]. Le poulailler; monographie des poules indigènes et exotiques. 3rd ed. *8vo. pp. 360. 117 figs. T. of c.* *Paris.*

JACQUEMONT, VICTOR [1801–32].
1843. Description des collections. Mammifères et Oiseaux. Pt. I. *4to. 8 pl. (7 col.).* *See* GEOFFROY SAINT-HILAIRE.

JACQUIN, JOSEPH FRANZ [1766–1839].
1784. Beyträge zur geschichte der vögel. *4to. pp. 5+45. 19 col. pl.* *Wien.*

This work is important to American ornithologists as 32 New-World birds are described, and some of them well portrayed in its pages and plates.

JACQUINOT, CHARLES HECTOR [1796–1879].
See FRENCH VOYAGES; AU PÔLE SUD, 1841–54.

(DER) JAEGER UNVERDROSSEN, *pseud.*
1900. Der Krammetsvogel und sein Fang. *8vo. pp. 117. 6 text-figs. T. of c.* *Neudamm.*

A popular book on the capture of birds for the dealer.

JÄGER, GUSTAV [1832–1917].
1874. Deutschlands Thierwelt nach ihren Standorten eingetheilt. *2 vols. 4to. illust. 14 col. pl.* *Stuttgart.*

1880–1900. Handwörterbuch der Zoologie, etc. *8 vols. 8vo.* *Breslau.*

JÄGERSKIÖLD, AXEL LEONARD KRISTER EDVARD [1867–].
1898–1920. *See* KOLTHOFF, G. I.

1904–28. Results of the Swedish zoological expedition to Egypt and the White Nile, 1901. Pts. 1–5. *many illust. pl.* *Uppsala.*

A voluminous work on the flora and fauna of the Upper Nile region.

******** and **KOLTHOFF,** G.
1911–26. Nordens fåglar. 1–48 (allt som utk.). *folio. 172 col. pl.* *Stockholm.*

This extensive and valuable treatise, profusely illustrated in color, of Scandinavian (especially Norwegian) bird life is now in course of preparation under the supervision of two well-known zoologists. To date about 50 parts have been issued, with nearly 200 colored plates, the originals by a modern artist of merit.

1920. *See* GYLLING, OLOF.

JÄGERSKIÖLD, L. A. *See* JÄGERSKIÖLD, A. L. K. E.

JAHRBUCH DER ANGEWANDTEN NATURWISSENSCHAFTEN. 1885–1922.
Freiburg.

JAHRBUCH DES INTERNATIONALEN FRAUENBUNDES FÜR VOGELSCHUTZ.
1904–11. Jahrg. I–VIII (? all pub.). *4to. illust.* *Berlin.*

This annual contains a number of semi-scientific papers on the protection and care of birds as well as a membership list of the branches (scattered throughout German-speaking countries) of the League. The membership of the latter includes many of the higher nobility.

JAHRBUCH DES NASSAUISCHEN VEREINS FÜR NATURKUNDE.
?**1845–92.** Jahrg. 1–45.

JAHRBUCH DER NATURGESCHICHTE ZUR ANZEIGE UND PRÜFUNG NEUE ENTDECKEN UND BEOBACHTUNG.
1802. *Leipzig.*

JAHRBUCH DER NATURKUNDE.
1903–13. Hrsg. v. H. Berdrow. Jahrg. 1–11. *Leipzig.*

JAHRBUCH DER NATURWISSENSCHAFT. Vols. I–XXVIII.
1885–1913. Index to 1890–1905. *Freiburg.*

JAHRBUCH FÜR VOGELFREUNDE.
1905–8. Jahrg. I–IV. (All pub.) *8vo.* Edited by Martin Braess. *Dresden.*

JAHRBUCH DER VOGELKUNDE.
1907–11. Vols. I–III (all pub.). Edited by Kurt Floericke. Kosmos Jahrbücher. *Stuttgart.*

During its brief existence this periodical did good work. Each volume contained in addition to excellent brief reviews of the literature of the palaearctic area a list with addresses of the chief (German) ornithologists and of the various ornithological societies in the German empire.

JAHRESBERICHT DES AUSSCHUSSES FÜR BEOBACHTUNGSSTATIONEN DER VÖGEL DEUTSCHLANDS.
1876–92. I–XII. *Naumburg, Berlin,* etc.

Prepared by an editorial committee and published (as a rule) yearly in the *Journal f. Ornithologie.* In the E.S.W. Library are most of these annuals.

JAHRES-BERICHT DES BUNDES FÜR VOGELSCHUTZ. *Stuttgart.*

The Compiler has seen only one issue, for 1917, pp. 12, 2 pl. (1 col.).

JAHRESBERICHT D. CHUR (SCHWEIZ) NATURFORSCH. GESELLSCH. 1823–7; 1853–*date*.

JAHRESBERICHT DES COMITÉS F. ORNITHOLOG. BEOBACHTUNGS-STATIONEN IN OESTERREICH-UNGARN.
1882–7. (All pub.) Edited by Tschusi zu Schmidhofen and Karl von Dalla-Torre.

These yearly reports are included in the text of *Ornis* but a few were also issued as supplements to that periodical, and published separately.

JAHRESBERICHT D. ELBERFELD NATURWISSENSCHAFTL.GESELLSCHAFT.
1878–80. 1–2 (all pub.). *See* ELBERFELD.

JAHRESBERICHT D. ELBERFELD NATURWISSENSCHAFTL. VEREIN. 1874–*date*. *See* ELBERFELD.

JAHRESBERICHT D. EMDEN. NATURFORSCH. GESELLSCHAFT. 1815–*date*. *See* EMDEN.

JAHRESBERICHT DES INTERNATIONALEN BUNDES FÜR VOGELSCHUTZ.
1913–14. (All pub.?) *Charlottenburg, Germany.*

JAHRESBERICHT DER KÖNIGL. UNGARISCH. ORNITHOLOG. ZENTRALS. BUDAPEST. German and Magyar.
?1893–1912. (All pub.) *Budapest.*

A number (perhaps all) of these are reprints from *Aquila*, although *Naturae Novitates* quotes some of them as distinct separates.

JAHRESBERICHT DER NATURHISTORISCHEN GESELLSCHAFT ZU NÜRNBERG.

The E.S.W. Library has only the years 1890–1926.

JAHRES-BERICHT DES NATUR-HISTORISCHEN VEREINES 'LOTOS'. *See* LOTOS.

JAHRESBERICHT DES NIEDERSÄCHSISCHEN ZOOLOGISCHEN VEREINS.
?1910–20. I–X. *Hannover.*

JAHRESBERICHT ÜBER DIE ORNITHOLOGISCHEN BEOBACHTUNGSSTATIONEN IN DÄNEMARK.
1883–*date*. *8vo.* Annual. Edited chiefly by G. F. Lütken and Herluf Winge. Published in German, English, and Danish. *Copenhagen.*

This periodical contains mostly extracts (with new pagination, title-page, and covers) from *Vidensk. fra den naturh. Forening*, and is largely filled with descriptions and reports of birds observed during the year in various parts of Denmark and occasionally in Iceland, Greenland, and other northern countries. To each part a map is appended marking the localities in which the reported birds were seen.

JAHRESBERICHT DER ORNITHOLOGISCHEN BEOBACHTUNGS-STATIONEN IM KOENIGREICHE SACHSEN.
1885–96. Jahrg. I–X. *Dresden and Leipzig.*

A most valuable contribution to avian periodical literature. The E.S.W. Library has none of the annuals after 1896.

JAHRESBERICHT DER ORNITHOLOGISCHEN GESELLSCHAFT IN BASEL.
1870–81. *8vo.* (All pub.?)

JAHRESBERICHT DER ORNITHOLOGISCHEN STATION IN SALZBURG.
1913–14. (All pub.) *8vo.* *Salzburg.*

JAHRESBERICHT DES ORNITHOLOGISCHEN VEREIN MUENCHEN.
1897–1930. Vols. 1–26. *8vo. illust.* Several supplements. *München.*

This valuable journal, containing many important contributions to general ornithology as well as a practical review of ornithologica literature by C. E. Hellmayr and other well-known ornithologists, is especially the organ of the Bavarian Ornithological Society and as such is largely devoted to mid-German bird literature. Among its many contributors are such well-known names as E. Stresemann, H. Stadler, A. Laubmann, Graf Seilern, A. Reis, the first editor (the late) C. Parrot, C. Schmidt *et al.* The periodical is still in vigorous 'progress'.

JAHRESBERICHT. STAATLICH AUTORISIERTE VERSUCHS-UND MUSTERSTATION FÜR VOGELSCHUTZ.
1908–30. *12mo and 8vo.* *Leipzig and Gera.*

These annuals give an account of the work of Count Berlepsch's Station in which the raising and protection of birds in all their relations are studied and carried out in a practical and scientific manner.

JAHRES-BERICHT DES VEREINES FÜR VOGELKUNDE UND VOGELSCHUTZ IN SALZBURG.
1875–97. *8vo.* *Salzburg.*

JAHRESBERICHT DER VERSUCHS- UND MUSTERSTATION FÜR VOGELSCHUTZ.
1908–15. I–VIII. (Suspended?) *Leipzig.*

At least seven Annuals were issued, most of them probably reprints of magazine reports. The station (school) was 'staatlich autorisert' and under the supervision of Count Hans von Berlepsch, Seebach, and did much good work in its day. The E.S.W. Library has an incomplete set.

JAHRESBERICHT DER VOGELWARTE ROSSITTEN DER DEUTSCHEN ORNITHOLOGISCHEN GESELLSCHAFT.
1900–30. *8vo. pp. 100 to 150. maps. tab.* Edited by J. Thienemann. General index 1894–1913.

The fact that the important issues under the above rubric occasionally appear as separates of or excerpts from the *Journal f. Ornithologie* (q.v.) does not give the essays a place as a genuine periodical. Occasionally, however, a *Bericht* was printed as a *supplement* to the *Journal* and separately paged; consequently it seems proper to list the whole issue briefly in this catalogue.

JAHRESBERICHT ÜBER DEN VOGELZUG AUF HELGOLAND. Edited by H. Galka and published by the Permanent International Ornithological Committee.
1884. I. Jahresbericht. *pp. 34.*
1885. II. Jahresbericht. *pp. 48.*
1886. III. Jahresbericht. *pp. 55.*

These annual reports were published in *Ornis*, and subsequently issued as separates, independently paged, however. They form appendices of the well-known monograph by Gätke, *Heligoland as an Ornithological Observatory.*

JAHRESBERICHT ÜBER DEN VOGELZUG AUF HELGOLAND VON HUGO WEIGOLD, HELGOLAND.
1909–18. Nos. I–IV.
Printed as *Sonderhefte* of the *Journal f. Ornithologie.*

JAHRES-BERICHT DES WESTFÄLISCHEN VEREINS FÜR VOGELSCHUTZ, GEFLÜGEL- UND SINGVOGELZUCHT.
(?) **1872–97.** All issued (?). Edited by H. Landois and other members of the Verein. *Münster.*

JAHRESHEFTE DES VEREINS F. VATERLÄNDISCHE NATURKUNDE IN WÜRTTEMBERG.
1845–30. Vols. 1–86. *many pl. Sonderhefte.*

JAMES, Frank Linsly [1851–90] and **others.**
1888. The unknown horn of Africa. An exploration from Berbera to the Leopard River. *8vo. pp. xiv+344. 23 pl. (10 col., 5 birds). T. of c. append. index.* *London.*

JAMES, George Wharton [1858–].
1909. The story of Scraggles, illustrated from drawings by Sears Gallagher and from photographs. *8vo. pp. vii+88. 5 pl. T. of c.* *Boston.*
As was the love of St. Francis of Assisi for the birds so was the sympathy of the author for a poor little weakling sparrow he rescued and named 'Scraggles' and which reciprocated that affection in many ways as related in this very touchingly written story. The first edition was issued in 1906.

JAMES, Harry Berkeley [1846–92].
1885. List of Chilean birds. *8vo. pp. 15.* *Valparaiso.*
An interleaved copy, the list being arranged in three columns, the first, containing the names given by Sclater in his list of Chilian birds, *Proc. Zool. Soc.*, 1867; the second, those of the Santiago Museum; the third contains the local names.

1892. (A) new list of Chilian birds compiled by the late Harry Berkeley James. . . . With a preface by P. L. Sclater. *8vo. pp. vii+16.* (Printed for private use.) *London.*
The above catalogue was prepared with the purpose of writing (with P. L. Sclater) a companion work to Hudson's (and Sclater's) *Argentine Ornithology*, but it was never completed. The present volume is from Sclater's library with many MS. notes by him.

JAMES, M. R.
1925. An English mediaeval sketch-book, No. 1916 in the Pepysian Library, Magdalene College, Cambridge. Reprinted from The Walpole Society's Thirteenth Volume. *pp. xxiii+171. collotype pl.*
The original of this 'Monks Drawing Book' is in the celebrated library of the famous diarist, and contains, among other subjects, eight half-page drawings of 74 birds, fully colored and clearly delineated. The drawings, by more than one artist, were mostly made about A.D. 1380. The collection forms the largest, if not the earliest, European atlas of its kind. Messrs. A. H. Evans and Kinnear (of the British Museum, Nat. Hist.) have identified and catalogued the bird portraits, which are faithfully and cleverly drawn.

JAMES, Uriah Pierson [1811–89], *pub.*
[*c.* **1852**]. The natural history of land birds. *See* ANONYMOUS.

JAMESON, James Sligo [1856–88].
1890. Story of the Rear Column of the Emin Pasha Relief Expedition. *8vo. pp. 32+455. 17 pl. 1 map. illust. in text.* *London.*
There is a Natural History appendix to this (posthumous) interesting volume edited by the author's widow, in which the Ornithological Work is described by R. B. Sharpe.

JAMESON, Robert [1774–1854].
1831. American ornithology. *See* WILSON, A. and BONAPARTE, C.

JANINI, R. J.
1924. Seleccion de estudios de cria caballar. *8vo. pp. lxvii+390. 63 pl.* *Valencia.*

JAN-MAYEN.
1894. Voyage de 'La Manche' a l'île Jan-Mayen et au Spitzberg. *8vo. pp. 6+268. 17 pl. (1 col.). 7 maps. illust. text.* (Wanting.) *Paris.*
The record of this sub-arctic expedition includes much natural history, a general account of which is furnished by H. C. G. Pouchet, the anthropologist. A list of the fishes is given by L. Vaillant and a catalogue of the birds by É. Oustalet.

JANSEN, Knud.
1896. Vore almindelige nyttige Fugle og deres Aeg; Populaer Text tildels efter H. Wallengren. *8vo. pp. 30. 20 col. pl. index.* *Copenhagen.*
An illustrated account of Danish and Norwegian birds. The plates depict 34 species with their eggs, all of which are systematically described in the text.

JAPAN. *See* ASIATIC SOCIETY OF JAPAN.

JAPAN CAGE BIRD CLUB. *See* KAIDORI.

JAPANESE JOURNAL OF ZOOLOGY. (**National Research Council of Japan.**) **1922–***date.* *Tokyo.*

[**JAPANESE MAGAZINES OF CELEBRATED PICTURES,** many of Birds and other Animals.]
n.d. Arranged in European Order. *2 vols.*

n.d. [Another volume, similarly arranged apparently but of different date.]
These animal portraits represent very well the methods of periodical illustration in modern Japan.

[**JAPANESE PRINTS OF BIRDS** by Ogata Kenzan, Mitsuoki, Mitsunari, and others.]
n.d. *4 pl. in portfolio. n.p.*
The print by Ogata Kenzan (1663–1743), Kôrin school, represents a Japanese Crow, the one by Mitsuoki (1617–91) and Mitsunari (1646–1710) two Quails with floral decoration, the two remaining ones a Wild Goose (15th century), and a Hawk attacking a Heron (Kano school). The artists' names of these last two are not stated on the mounts, probably because they were unknown. All four prints are fine examples of the work of their respective artists and periods.

JAPANESE SOCIETY FOR APPLIED ZOOLOGY. *See* ÖYO-DOBUTSUGAKU-ZASSHI.

JAPAN IMPERIAL UNIVERSITY. College of Science. *Tokyo.*
1887–1925. Journal.

1912–19. Zoological Institute Contributions.

(**K.**) **JAPANISCHEN UNIVERSITÄT.** *Tokyo.*
1887–*date*? Mittheilungen.

JAPP, Alexander Hay [1839–1905].
1899. Our common cuckoo, and other cuckoos and parasitical birds; an attempt to reach a true theory of them by comparative study of habit and function. *12mo. pp. 11+292. illust.* *London.*

JARDIN DES PLANTES, PARIS. *See* JAUME-SAINT-HILAIRE (1772–1845).

JARDIN DES PLANTES (LE).

1842–3. Description du Muséum d'Histoire naturelle, de la Ménagerie, des Serres, des Galeries de Minéralogie et d'Anatomie, et de la Vallée Suisse. *2 vols. 4to. 3 maps. 145 plain and 33 hand-colored pl., and num. text-illust.*

JARDINE, *Sir* WILLIAM [1800–74] and **SELBY,** P. J.

1826–43. Illustrations of ornithology. *4 vols. folio. n.p. 207 col. pl.* *Edinburgh.*

This celebrated work was issued in 19 parts, constituting chiefly a series of beautiful hand-colored plates with explanatory text of birds of many regions by well-known artists, among them Lear, Gould, and the principal text contributors themselves. Three volumes have 154 plain duplicates of the colored illustrations. The dates of publication of the various parts have long been in doubt. Zimmer, *Ayer Cat.*, pp. 322–4, fully discusses the question. A collation of the four volumes of the present copy is as follows:
Vol. I [1826]–[1828]. pp. 1+64 ll.+1. 50 col. and 50 plain pl. Index to vols. I and II (dup.).
Vol. II [1828]–[1830]. 59 ll. 50 col. and 50 plain pl. Index to vols. I and II.
Vol. III [1830–5]. 60 ll. 54 col. and 54 plain pl.
Vol. IV [1837–43]. 62 ll. 53 col. pl. 7 figs. in text.
The title of this volume has only the names of Jardine and Selby, with the legend 'Vol. IV'.

1829. The Natural History of Selborne . . . ed. *12mo.* Gilbert White.

The editor of the Naturalist's Library published this edition and followed it in 1851 by another, 8vo, printing. Subsequent editions of this particular title were also published in 1854 and 1876.

1832. American Ornithology: . . . notes and life of Wilson. *3 vols. 8vo. See* WILSON, A. *London.*

A second edition (12mo) by Jardine was published in 1854.

1833–41. The natural history of humming-birds. *2 vols. 12mo. portr. pl. T. of c. index.* (In Jardine, Sir William, *ed.*, Naturalist's Library. *Ornithology*, 1833–43, vols. 1–2.) Vol. I, *pp. xv+25–191. pl. 33 col.* Vol. II, *pp. viii+192. pl. 30 col.* *Edinburgh.*

The first two volumes of the Ornithology in one of the numerous editions of the well-known Jardine's Naturalist's Library. The fine hand-colored plates in this case have backgrounds in many instances, thus differing from the first (1833) edition. The two volumes furnish a short description of all the known species of humming-birds, with their synonymy; also a brief biography (and portraits) of Pennant and Linnaeus.

1833–4. Humming Birds. Naturalist's Library. 1st ed. *2 vols. 8vo. 63 col. pl.* *Edinburgh.*

A second edition (lacking the background in the plates) of this dainty little work (with memoirs of Linnaeus and Pennant) was issued in (1845–6). *See also* NATURALIST'S LIBRARY.

1834. Game Birds. (Memoir of Sir J. S. Raffles.) *8vo. pp. 197. 30 col. pl. 1 portr. engr. title.* *Edinburgh.*

This is vol. VI of the Naturalist's Library, or vol. IV of the section of Ornithology. Another edition, the second issue of the Naturalist's Library, new vol. VIII, was issued in 1845–6.

[**? 1834–8**]. Naturgeschichtliches Cabinet des Thierreiches. Aus dem Englischen von Dr. August Diezmann. *4 vols. 8vo.* *Pesth.*

The third volume on ornithology is divided into two parts, of which the second part is devoted to Game Birds and contains as a frontispiece the portrait of Sir Stamford Raffles. This the rarest issue of the well-known Naturalist's Library, and the only foreign edition known to the Compiler. It is not listed in the British Museum or Zoological Society Catalogue, and not mentioned by Mullens. The present copy consists of three volumes only, but the third part states that the whole issue will consist of 15–18 sections. The colored plates have been relettered and probably redrawn. The first four volumes (? all published) are as follows:
I. Naturgeschichte der hühnerartigen Vögel, erster Theil: Truthühner, Pfauen, Haushühner, Fasanen und Perlhühner. Mit dem Bildnisse des Aristoteles und 31 colorirten Abbildungen.
II. Naturgeschichte der Katzenartigen Säugethiere: Löwen, Tiger, Leoparden, Jaguare, Luchse u.s.w. Mit dem Bildnisse Cuvier's, einer Vignette und 36 colorirten Abbildungen.
III. Naturgeschichte der hühnerartigen Vögel, zweiter Theil, das Federwildpret, nämlich: Rebhühner, Birkhühner, Wachteln, Schneehühner u.s.w. Mit dem Bildnesse des Sir Thomas Stamford Raffles, einer Vignette und 30 colorirten Abbildungen.
IV. Naturgeschichte der wiedertauenden Thiere, erster Theil: Kameele, Llama, Elenthiere, thibetanische Ziegen, Hirsche, Rehe, Steinböcke, Antelopen, Gemse u.s.w. Mit dem Bildnisse des John Hunter, einer Vignette und 31 colorirten Abbildungen.
A covering date, 1837, on a vignetted title is provided for the sections on Feathered Game, but at least two of these were issued in 1835–6. The first part probably appeared in 1834.

1834–6. The Naturalist's Library. Edited by W. Jardine. *40 vols. 8vo. hundreds of col. pl. and text illust.* *London.*

The volumes of this famous collection are entered in this *Catalogue* under the respective names of their writers. In addition to the description and depiction (mostly finely colored plates) by various well-known contributors to almost the whole range of the subject, the series is supplemented by biographies of famous naturalists of all times and of all countries—Linnaeus, Alex. Wilson, F. Willughby *et al.* It is well described as a remarkable little library of early nineteenth-century zoology, as well as a brief account of the lives of the chief zoologists of all time, from Aristotle to Azara. *See also* NATURALIST'S LIBRARY.

1836. Gallinaceous Birds. (Memoirs of Aristotle.) *8vo. pp. 225. 29 col. pl. 1 portr.* *Edinburgh.*

Vol. V of the Naturalist's Library or Vol. III of *Ornithology*. A second edition of this valuable series was issued in 1845–6, of which the above title formed vol. XIV.

1838. The natural history of [British] Birds of Prey. *8vo. pp. xiv+315. 36 col. pl.* *Edinburgh.*

Preceded by a memoir of Sir Robert Sibbald, the author-editor of this separate monograph in the justly famous Naturalist's Library gives a brief but useful account of British Birds of Prey with their synonyms, habits, nidification, &c.

1838–43. Birds of Great Britain and Ireland. *5 vols. 8vo.* (The Naturalist's Library.)

The *five* volumes in which the above four parts are bound in the E.S.W. Library are as follows: Vol. I, 1838. Birds of Prey, Wm. Jardine. Vol. II, 1838. Flycatchers. Wm. Swainson. Vol. III, 1839. Incessores, Wm, Jardine. Vol. IV, 1842. Rasores and Grallatores, Wm. Jardine. Vol. V, 1843. Natatores, Wm Jardine. Most of these titles are separately treated in this *Catalogue* under proper captions. A second edition was published in 1845.

1839. The natural history of the birds of Great Britain and Ireland. Incessores. *8vo. pp. xii+409. 33 col. pl (3 of eggs).* *Edinburgh.*

This short but well-written account of the Shrikes, Thrushes, Chats, Warblers, &c. of the British Isles is preceded by a brief biography of William Smellie. In the E.S.W. Library it forms vol. XI of *Ornithology* in the Jardine Naturalist's Library. As in the case of the other monographs there were several almost identical printings and reissues of this standard work.

[**1839–41**]. British Salmonidae. Pts. 1 and 2 (all pub.). *12 col. pl.* (Wanting.) *Edinburgh.*

1840. The natural history of humming-birds. *2 vols. 8vo.* Vol. I, *pp. xv+191. 34 pl. (col.). 11 figs.* Vol. II, *pp. viii+192. 30 pl. (col.). 5 figs. T. of c. index.* *Edinburgh.*

This is a special edition of the work first published in 1833, with some changes.

1842. The natural history of the birds of Great Britain and Ireland. Pt. III. Rasores and Grallatores. *8vo. pp. xvi+349. 34 col. pl.* (Naturalist's Library, *Ornithology*, Vol. XII.) *Edinburgh.*

1843. The natural history of the birds of Great Britain and Ireland. Pt. IV. Natatores. *8vo. pp. xiv+313. 33 col. pl.* (Vol. XIV, Naturalist's Library, *Ornithology*.) *Edinburgh.*

1843. The natural history of nectariniadae or sun-birds. *8vo. pp. 14+277. 30 col. pl. T. of c.* (Naturalist's Library, *Ornithology*, vol. 13.) *Edinburgh.*

This preface is a memoir, by the editor, of Francis Willughby. A second issue appeared in 1845–6.

[**JARDINE,** *Sir* W. (*contd.*)]

[**1844–64**]. Ornithology. Birds of Great Britain and Ireland. *4 vols. 8vo. 129 col. pl.* Naturalist's Library. *Edinburgh.*

This is practically a reprint from the Naturalist's Library, with new titles, and furnishes the ornithological portion of Jardine's works.

[**1845–6**]. Lions, Tigers, etc. (Memoir of Cuvier.) *8vo. pp. 276. 34 col. pl. Edinburgh.*

The above is vol. XVI (second issue) of the famous Naturalist's Library; also entitled *Mammalia*, vol. II.

[**1845–6**]. Fishes of the Perch Family. (With memoir of Sir J. Banks.) *8vo. pp. 177. 34 pl. Edinburgh.*

Vol. XXXVIII, second issue (*Ichthyology*, vol. IV), of the Naturalist's Library.

[**1845–6**]. Monkeys. (Memoir of Buffon.) *8vo. pp. 288. 29 col. pl. Edinburgh.*

Vol. XXVII (*Mammalia*, XIII) of the second issue, Naturalist's Library.

[**1845–6**]. Deer, Antelopes, Camels, etc. (Memoir of Camper.) *8vo. pp. 229. 33 col. pl. Edinburgh.*

The above is vol. XXI, or *Mammalia*, vol. VII, second issue, of the Naturalist's Library.

[**1845–6**]. Goats, Sheep, Oxen, etc. (Memoir of J. Hunter.) *8vo. 32 col. pl. Edinburgh.*

This is vol. XXII (*Mammalia*, VIII) of the Naturalist's Library, second issue.

[**1845–6**]. Thick-skinned Quadrupeds. (Memoir of Hans Sloane.) *8vo. pp. 248. 30 col. pl. Edinburgh.*

Vol. XXIII (*Mammalia*, IX) of the Naturalist's Library, second issue.

1848–53. Contributions to ornithology for 1848–52. *5 vols. 4to. 101 col. pl. T. of c. Edinburgh.*

This rare work is sometimes catalogued as a periodical. It was certainly issued at intervals to subscribers in parts that were separately paged. The volume for 1848–9 contains an important section—'Illustrations of Ornithology'—with beautiful hand-colored portraits of birds. The 1850 volume, also separately paged, contains, among other important matter, 'Illustrations of Foreign Oology'. The volume for 1851–2, also profusely illustrated with both plain and colored plates, presents more Ornithological Illustrations, papers, reviews, &c., but no index. The volumes in hand are from the Godman Library, two of which have laid in two A.L.S. from Sir William Jardine on matters relating to the 'Contributions'.
An incomplete set, once the property of Jules Verreaux, in the E.S.W. collection, with original wrappers, has MS. notes by Dr. Chas. W. Richmond through whom it was secured for the Library.

1854. *See* WILSON, ALEX.

1858. Memoirs of Hugh Edwin Strickland. *See* STRICKLAND, H. E.

1919. A Naturalist's Calendar, kept by Sir William Jardine . . . from 1st–31st January 1829. Edited by Hugh S. Gladstone. *4to. pp. 37. front.*

Editor's reprint from the *Trans. Dumfriesshire and Galloway Nat. Hist. and Antiquarian Soc.*

JARMER, KARL.

1928. Das Seelenleben der Fische. *8vo. pp. 10+131. 8 pl. München.*

JASPER, THEODORE and **STUDER,** J. H.

1874–8. Ornithology; or, The science of birds. From the text of Dr. Brehm. With two hundred and twelve illustrations. *folio. pp. (6)+156. 4 pl. (diagr.). 37 pl. T. of c. Columbus, O.*

The first edition of the numerous, involved, and widely printed Jasper-Studer publications, for most of which Dr. Jasper made the drawings and Studer supplied the text. Issued in 40 parts in conjunction with *Studer's popular Ornithology. The Birds of North America*, 1878. The covers to parts 21–40 are bound in at the end of the volume. *See also* STUDER, J. H., 1874–8.

1881? Studer's popular ornithology. The birds of North America. Upwards of seven hundred different species and varieties. *folio. pp. (10)+182. 119 pl. (col.). 2 indexes. Montreal.*

A revised edition of the earlier work of similar title, 1874–8. Much of the text is the same as the former edition although some of it is rewritten with corrections and alterations in the nomenclature. The illustrations are mostly as before with retouching, except plates I–XIII which are materially altered, not only as to backgrounds, but with changed, enlarged, and altered attitudes of the birds, and in some cases the entire plate has been printed backwards. The coloration of most of the plates is also different from the original ones. There is no date on the title-page other than that of the copyright, 1881. The present copy was published by Arthur J. Cleveland & Co., Montreal, Canada.

1895. The birds of North America. Jacob H. Studer, editor and proprietor. *folio. pp. 16+182. 119 pl. (col.). 2 indexes. New York.*

This edition differs but little from that of 1881, except in its title, and the addition of the systematic table, with index to page, plate, and figure in the text. The name of the author, Theodore Jasper, is omitted in the title of the present edition, only that of the editor, Jacob Henry Studer, appearing, with his portrait as a frontispiece. Another edition appeared in 1897. *See also* STUDER, J. H.

1897. The birds of North America. *pp. 16+182. 119 pl. (col.). 2 indexes. New York.*

This edition differs in no essential from that of 1895.

JASSY. Société des Médecins et Naturalistes. *Jassy.*

1892–1911. Bulletin.

1912–16. Bulletin et Mémoires.

1923–*date.* Buletinul. (Iasi.)

JASSY UNIVERSITATE, ROUMANIA.

1900–*date.* Annales Scientifiques.

JAUBERT, JEAN BAPTISTE [1826–?97] and **BARTHÉLEMY-LAPOMMERAYE,** C. J.

1859–62. Richesses ornithologiques du Midi de la France, ou Description méthodique de tous les oiseaux observés en Provence, etc. *7 pts. folio. pp. 547. 20 col. pl. Marseille.*

The birds of Middle and Southern France are systematically described and their specific and generic characters fully detailed. The hand-colored plates are remarkably well done; indeed the whole work is a valuable and practical treatise on the subject.

(**JAUME-SAINT-HILAIRE,** JEAN HENRI), [1772–1845].

1801. An XI. Notice des principaux objets d'histoire naturelle, conservés dans les Galeries du Muséum du Jardin des Plantes de Paris. *8vo. pp. 216. Paris.*

Name of author from Sherborn, *Index Animalium*.
This systematic catalogue has a curious and excessively rare manuscript editorial 'parafe' (or scroll-like signature of the author) in Arabic characters subscribed to the official right of publication (copyright). The title fully describes the purpose of the work. The translation of the Arabic script is 'May the blessings of Allah be upon him'.

JEANNEL, RENÉ.

1926. Faune Cavernicole de la France, etc. *Paris.*

JEFFERIES, JOHN RICHARD [1848–87].

1878. The gamekeeper at home; sketches of natural history and rural life. *8vo. pp. 7+216. T. of c. London.*

A third printing appeared in 1879 and still another in 1881 without essential changes.

1880. Round about a great estate. *8vo. pp. vii+[2]+204. T. of c. Boston.*

1881. The amateur poacher. New ed. *8vo. pp.* [4] +*240. T. of c.* *London.*

Many references to birds from the gamekeeper's point of view. The first edition was issued in 1879. Another reprint was published in 1914.

1883. Nature near London. *8vo. pp. vi+242. T. of c.* *London.*

Another edition was published in 1908.

1884. The life of the fields. *8vo. pp. viii+262. T. of c.* *London.*

Another edition was published in 1908.

1889. Field and hedgerow, being the last essays of Richard Jefferies. *8vo. pp. 8+331.* *London.*

Another edition was published in 1900.

1889. Wild life in a southern county. *12mo. pp. viii+344. 1 fig. T. of c.* *Boston.*

First edition published in 1879, and there have been over a dozen editions since that date, many of them in the McGill libraries.

1908. The open air. *8vo. pp.* [6]+*234. 12 pl.* (*col.*). *T. of c.* *Philadelphia.*

Reprinted in 1909.

JENA. *See* MEDIZINISCH-NATURWISS. GESEL. ZU JENA.

JENAISCHE ZEITSCHRIFT FÜR NATURWISSENSCHAFT. **1864**–*date.* *Jena.*

JENKINS, JAMES T.

1920. The Sea Fisheries. *8vo. pp. 31+299. 39 pl. 2 maps.* *London.*

JENKINSON, JOHN WILFRID [1872–].

1913. Vertebrate embryology. *8vo. pp. 267. 162 figs. T. of c. index.* *Oxford.*

JENNINGS, C.

[**1853**]. The eggs of British birds, displayed in a series of engravings, copied and coloured from nature. *8vo. pp. xxx+200. 6 pl.* (*col.*). *T. of c.* *London.*

JENNINGS, HERBERT SPENCER. **1901.** *See* REIGHARD, JACOB ELLSWORTH.

JENNINGS, JAMES.

1828. Ornithologia; or The birds, a poem in two parts. *8vo. pp. 29+468. index.* *London.*

Neville Wood describes this work as 'devoid of both science and poetry'.

JENNISON, GEORGE.

1897. Natural History of Animals, etc. *8vo. pp. 360. illust.* *London.*

[**1927**]. Natural history of animals; an illustrated who's who of the animal world. *8vo. pp. 16+343. pl.* *London.*

JENSEN, J. V.

1927. Dyrenes Forvandlings. *Copenhagen.*

This is an important treatise on the characters exhibited during the processes of metamorphosis in animals.

JENSEN-HAARUP, ANDERS CHRISTIAN. **1899.** *See* FLORA OG FAUNA, 1899.

JENTINK, FREDERICUS A. **1890–1907.** *See* WEBER, MAX C. W.

1906. *See* WICHMANN, C. E. A.

JENYNS (afterwards **BLOMEFIELD**), LEONARD [1800–93].

1835. A Manual of British Vertebrated Animals. *1 vol. 8vo. See also* BLOMEFIELD. *Cambridge.*

1839–43. *See* ZOOLOGY OF THE VOYAGE OF H.M.S. BEAGLE. *See also* BLOMEFIELD, LEONARD.

JERDON, THOMAS CLAVERHILL [1811–72].

1839–40. Catalogue of the birds of the peninsula of India, arranged according to the modern system of classification, etc. *pp. 140+227.* *Madras.*

Issued, repaged and in separate parts, as an excerpt from the *Madras Journ. of Lit. and Science*, 1839–40. It is an early descriptive catalogue, arranged in systematic manner, of the birds of India. The present is a specially bound copy, presented to Thomas Horsfield who has added marginal notes.

1847. Illustrations of Indian ornithology, containing fifty figures of new, unfigured and interesting species of birds, chiefly from the south of India. *4to.* Pt. IV, *unp.* (*25*). *10 pl.* (*col.*). *T. of c. index.* *Madras.*

This rather rare treatise was issued in four parts of which the above is the fourth and concluding one in the original wrappers. The firm of Higginbotham, Ltd., of Madras, where the Compiler purchased it, had never seen a complete set in the original wrappers, the present part being one of three which they had sold one by one.

1847. Illustrations of Indian ornithology, etc. *8vo. unp.* (*166*). *50 pl.* (*col.*). *T. of c. index.* *Madras.*

The work was issued in four parts. In the original form, the backgrounds of the plates were incomplete as compared with the later types in which additional backgrounds were added. In the present copy a large number of the backgrounds appear to be incomplete and the work is very rare in this state.

1847. Illustrations of Indian ornithology. *4to. unp.* (*142*). *50 pl.* (*col.*). *T. of c. index.* *Madras.*

This edition differs from the octavo, 1847, in having more elaborate and finished backgrounds to many of the plates; the text is the same.

1862–4. The birds of India: being a natural history of all the birds known to inhabit continental India; with descriptions of the species, genera, families, tribes, and orders, and a brief notice of such families as are not found in India. *2 vols. in 3. 8vo.* [Vol. II is in two continuously paged parts, of which Pt. 2 is also styled vol. III.] Vol. I, *pp.* (*18*)+*xlv+535. T. of c.* Vol. II, *pp.* (*8*)+*439. T. of c.* Vol. III, *pp. 441–876+xxxii. T. of c. index.* *Calcutta.*

An exhaustive work on the birds of India, with descriptions, some synonymy (including native names), and voluminous notes on habits and distribution, &c. Another edition with supplementary notes was published in 1877.

1862–4. The birds of India. [Collections for a revised edition by H. H. Godwin-Austen.] *5 vols. 8vo.* Vol. I, *pp.* (*18*)+*xlv+535. T. of c.* Vol. II, *pp.* (*8*)+*439. T. of c.* Vol. III, *pp.* (*8*)+*iv*+(*4*)+*441–876+xxxii. T. of c. bibliogr. index.* Vol. IV, *pp.* (*688*) *MS. 18 pts.* Vol. V, *pp.* (*40*) *MS. 1 pt.*

CONTENTS: vols. 1–3, with Godwin-Austen's drawings and notes. [4]. Species omitted—Author's MS. and drawings. [5]. Supplement. Author's MS. *Calcutta.*

A unique collection. Volumes I–III comprise H. H. Godwin-Austen's copy of Jerdon's original edition of *Birds of India*, 1862–4, with numerous MS. corrections and notes for a 2nd edition and colored drawings by Godwin-Austen inserted. Volume IV contains the MS. in 18 parts of Jerdon's Supplement to his edition of 1862–4 (in Jerdon's own handwriting, 688 pp.) used by Godwin-Austen for his second edition, while Vol. V contains a further MS. in Jerdon's handwriting (40 pp.), with some colored drawings by Jerdon, on the birds of Assam, Sylket, Burma, &c., not included in the *Birds of India*. The whole five volumes are unpublished.

[**JERDON**, T. C. (*contd.*)]

1863–70. The birds of India, etc. *2 vols. in 3. 8vo.* Vol. I, *pp. (14)+xlv+(1)+535. T. of c.* Vol. II, *pp. (6)+439. T. of c.* Vol. III, *pp. (8)+iv+(3)+(1)+441–876+xxxii. T. of c. index.*
Vol. I. *Cherraponjee.* Vols. II–III. *Calcutta.*

A reprint of the edition of 1862–4 (q.v.), the only difference being that volume I bears the title-page of the 1870 edition with Cherraponjee as place of issue, instead of Calcutta as in vols. II–III. A further edition with supplementary notes appeared in 1877.

1864. The game birds and wild fowl of India; being descriptions of all the species of game birds, snipe, and duck found in India, with an account of their habits and geographical distribution. *8vo. pp. [4]+195. index.* (MS. notes at back of index.) *Calcutta.*

A very rare treatise.

? 1866. [Birds of India. Index of English and native names.] *8vo. pp. 24+38. n.p.*

Index to Jerdon's *Birds of India*, 1862–4 (q.v.), in two parts, the first containing the English names, pp. 1–24, the second the native names, pp. 1–38.

1867. The Mammals of India, etc. *8vo. pp. 16+319+15.* (Wanting.) *Rorkee.*

An excellent treatise by a well-known naturalist. A. C. McMaster, in 1870, wrote *Notes on Jerdon's Mammals of India.*

1874. The Mammals of India, etc. *8vo. pp. 31+335. append. index.* *London.*

In 1867 the first edition of this popular work was issued from Rorkee. The present volume may be regarded as the second edition, although not officially recognized as such.

1877. The birds of India. *2 vols. in 3. 8vo.* Vol. I, *pp. lv+535+lxxxvii. 1 pl. T. of c.* Vol. II, *pp. (8)+439+xvi. T. of c.* Vol. III, *pp. 441–876. T. of c. indexes.* *Calcutta.*

A page-for-page reprint of the 1862–4 edition to which has been added the supplementary notes published in *Ibis* for 1871–2, under the supervision of Maj. Godwin-Austen.

JERSEY. Marine Biological Laboratory. *See* JOURNAL OF MARINE ZOOLOGY AND MICROSCOPY.

JESSE, EDWARD [1780–1868].

1832–5. Gleanings in natural history. *3 vols. 8vo.* Vol. I, *pp. xi+(1)+314. 1 pl.+7 (inserted). 7 figs. T. of c.* Vol. II, *pp. xi+(1)+321. front. (inserted chart). 15 pl. (inserted). 5 figs. T. of c.* Vol. III, *pp. xi+(1)+310. front. 1 pl.+12 (inserted). 1 fig. T. of c.* *London.*

In the present copy volumes II and III are first editions or series, vol. I being the third series, the first appearing in 1832. The three volumes in hand are extra illustrated principally by wood-cuts from Bewick first edition, the total number being 34, and not 48, as stated in the pencil note to vol. I. A presentation copy from the author to the Honble. Mrs. Talbot.

1834. Gleanings in Natural History . . . to which are added some extracts from the unpublished MSS. of Mr. White of Selborne. *8vo. pp. 11+321.* Second Series. *London.*

The second of three famous series, the first having been published in 1832.

1838. Gleanings in natural history. *2 vols. 8vo.* Vol. I, *pp. xi+352. 1 pl. 6 figs. T. of c.* Vol. II, *pp. v+383. 4 figs. T. of c.* *London.*

The fourth edition of the three series, to which considerable additions have been made.

1844. Scenes and tales of country life, with recollections of natural history. *8vo. pp. vii+395. 3 pl.+11 (inserted). T. of c.* *London.*

In the present copy 11 extra wood-cuts (principally from Bewick, 1st ed.) have been inserted. Another edition, with title altered, appeared in 1875.

1861, 1876, 1881. The natural history of Selborne. *See* WHITE, *Rev.* GILBERT.

1874. Bird-life, &c. *See* BREHM, A. E.

JEWETT, STANLEY G. and **GABRIELSON**, IRA N.

1929. Birds of the Portland Area, Oregon. *8vo. pp. 54. 21 figs.* *Berkeley.*

JHERING, HERMANN VON. *See* IHERING, H. VON.

JOB, HERBERT KEIGHTLEY [1864–].

1902. Among the water-fowl . . . in the northern and middle states and lower Canada, east of the Rocky mountains. *8vo. pp. xxi+224. 96 figs. T. of c.* *New York.*

Another issue appeared in 1903 without alterations of any kind.

[1905]. Wild wings; adventures of a camera-hunter among the larger wild birds of North America on sea and land. *8vo. pp. xxiv+341. 18 pl. 144 figs. T. of c. index.* *New York.*

1908. The sport of bird-study. *8vo. pp. xiii+284. 75 pl. T. of c. index.* *New York.*

A popular account of how to shoot birds with a camera rather than with a gun.

1910. How to Study Birds, etc. *8vo.* *New York.*

1915. Propagation of wild birds; a manual of applied ornithology, treating of practical methods of propagation of quails, grouse, wild turkey, pheasants, partridges, pigeons and doves, and waterfowl, in America, and of attracting and increasing wild birds in general. *8vo. pp. xii+276. front. 64 pl. T. of c. addend. index.* *New York.*

A revised and enlarged edition was issued in 1923.

1917. Birds of America. *See* PEARSON, T. G.

JOCHELSON, VLADIMIR ILICH [1856–].

1928. Peoples of Asiatic Russia. *8vo. pp. 277. pl. maps.* *New York.*

JOHANNES DE SANCTO GEMINIANO.

1499. Summa de exemplis ac similitudinibus rerum. *8vo. pp. [18]+756.* *Venice.*

This is one of the rarer incunabula—really a second edition of the 1497 (word-for-word) treatise from Dean Adams' library—a small black-letter copy which devotes a paragraph here and there to the bird life of the Middle Ages, probably as known to the writer from the pages of Aristotle and not from his own observations. See *Cat. Br. Mus. Bloomsbury*, p. 351.

JOHANSEN, ANDERS CORNELIUS JACOB [1867–].

1918. Randers Fjords Naturhistorie, ved A. C. Johansen, under Medvirkning af Hj. Ditlevsen [and others]. *4to. pp. 8+520. illust. maps.* *Copenhagen.*

JOHANSEN, G.

1907. Material for a study of Tomsk ornithology. [In Russian.] *8vo. pp. [6]+240+[2].*

The above systematic contribution to our knowledge of Siberian birds includes 291 species. It is in Russian with a partial translation into German of important headings by Prof. Reichenow, to whom the copy in hand was presented by the author.

JOHN CRERAR LIBRARY.

1902. A list of bibliographies of special subjects . . . July, 1902. *4to. pp. 504.* *Chicago.*

The bibliography of natural history, extremely useful for the student and librarian, comprises pp. 183–288.

JOHNS, CHARLES ALEXANDER [1811–74].

1862. British birds in their haunts. *8vo. pp. 32+626. 190 text-figs.* *London.*

First edition. This deservedly popular treatise passed through nearly 20 printings.

1867. British Birds in their Haunts. *8vo. London.*

Another of numerous editions.

1905. I go a-walking through the lanes and meadows. *8vo. pp. 99. illust.* *Edinburgh.*

1920. British Birds in their Haunts. 15th ed. *8vo. pp. 22+626. 16 col. pl. 190 text-figs. index.* *London.*

1922. British Birds in their Haunts. *8vo. 64 col. pl.* *London.*

JOHNS HOPKINS UNIVERSITY. *Baltimore, Md.*

1887–1903. Biological Laboratory—Memoirs.

1877–93. Biological Laboratory—Studies.

1878. Chesapeake Zoological Laboratory—Scientific results.

JOHNSON, ALLEN, *ed.* **?1922.** *See* DICTIONARY OF AMERICAN BIOGRAPHY.

JOHNSON, GEORGE LINDSAY [1854–].

1901. Contributions to the Comparative Anatomy of the Mammalian Eye, etc. (Repaged reprint of the *Philosophical Trans. Roy. Soc.*) *folio. London.*

JOHNSON, MAYNARD STICKNEY [1900–].

[**1926**]. Activities and distribution of certain wild mice in relation to biotic communities. *4to. pp. 2+36. illust.* (Illinois University thesis.) *Baltimore.*

JOHNSON, MYRTLE.

[**1828**]. Seaside Animals of the Pacific Coast.

JOHNSON, P. H. **1926.** *See* DOUGLAS, A. J. A.

JOHNSON, THEO.

1909. Some Varieties of the Domestic Cat. *4to. pp. 27. 26 col. pl.*

JOHNSON'S NATURAL HISTORY. *See* GOODRICH, S. G., 1875.

JOHNSTON, HARRY HAMILTON, *Sir* [1858–1927].

1882. Report on the natural history of [Portuguese] Mossâmedes and district, and of south-western Africa generally. *8vo. pp. 13.* *London.*

1884. The River Congo . . . with a general description of the natural history. *8vo. pp. xvii+470. 11 pl. text illust. 2 maps.* *London.*

1886. The Kilimanjoro Expedition, etc. *8vo. pp. 15+572. 15 pl. 4 maps. text illust.* (Wanting.) *London.*

In the appendix of this work, describing one of the best known of Sir Harry Johnston's expeditions, is a List of the Birds collected, by G. E. Shelley, and a List of Mammals obtained, by O. Thomas.

1902. The Uganda Protectorate . . . Zoology, etc. *2 vols. 8vo. illust. (col.).* *London.*

For this interesting History O. Thomas furnishes a *List of the Mammals*, C. Chubb *A tentative list of the Birds*, and G. A. Boulenger a *List of the cold-blooded Vertebrates.*

1903. British mammals. *4to. pp. 16+405. illust.* (Woburn Library.) *London.*

1906. British Central Africa. *4to.* *London.*

1906. Liberia [and its natural history]. *London.*

[*c.* **1923**]. The story of my life. *8vo. pp. (6)+504. front. (portr.). 31 pl. 1 map (col.). append. index.* *London.*

The autobiography of a noted naturalist, empire builder, and author, in which there are numerous references to animal life, such as those of Achill Island, the Cameroons, the Lower Congo, Tanganyika, &c.

******** and **others.**

1926. Marvels of the Universe. A Popular Work on the Marvels of The Heavens, The Earth, Plant Life, Animal Life. *2 vols. 4to. 36 col. pl. 821 figs.* *London.*

A popular treatise on natural philosophy with a scientific tone that distinguishes it from several others of its class. Vertebrate zoology is fairly presented.

n.d. Wonders of the World, etc. *28 col. pl. See* WONDERS OF THE WORLD.

JOHNSTON, I. H.

1923. Birds of West Virginia. *8vo. pp. 138. front. 2 pl. 62 figs. (42 col.). 1 diagr.* *Charleston.*

JOHNSTON, JOHN BLACK [1868–].

1906. The nervous system of vertebrates. *8vo. pp. xx+370. 180 figs. T. of c. bibliogr. index.* *Philadelphia.*

JOHNSTONE (JOHNSTON, JONSTON, JONSTONUS), JOHN [1603–75].

1632. Thaumatographia naturalis in decem classes distincta, etc. *12mo.* *Amstelodami.*

This rare first edition of a famous treatise is in the *Bibliotheca Osleriana.*

1633. Thaumatographia naturalis, in classes decem divisa. Ed. Secunda priore auctior. *18mo. pp. 6+578.* *Amstelodami.*

In this very early (second) edition Johnstone acknowledges his indebtedness to Aristotle and to Galen. The ten classes are: Sky, Elements, Meteors, Fossils (meaning minerals dug out of the ground), Plants, Birds, Quadrupeds, Invertebrates (*Exsanguinea*), Fishes, Man.

1641. Thaumatographia naturalis in decem classes distincta, etc. *12mo. pp. 498+[14].* *Amstelodami.*

A very interesting early treatise on animals, issued in 10 parts of 37 chapters, of which part VI is devoted to birds.
Newton (*Dict. Birds*, p. 6) describes this and the other treatises of the author, of Scottish descent but by birth a Pole, 'that ran through several editions in the seventeenth century, as little more than an epitome of the work of Aldrovandus'. The copy in hand is from the Dean Adams Library.

1657. (An) history of the wonderful things of nature set forth in ten severall classes; and now rendred into English by a person of quality. *4to. pp. [14]+354.* *London.*

1657. Historia naturalis. *6 pts. in 1 vol. folio. pl.* *Amstelodami.*

CONTENTS. Vol. [1]. De quadrupedibus [2]. De avibus. [3]. De piscibus. [4]. De exanguibus aquaticis. [5]. De insectis. [6]. De serpentibus.

This (*editio princeps*) was also published in Frankfurt a/M. in 1657–68, and there issued in six separate parts. One copy of this rare work belonged to Francis Willughby (with his autograph on the title) and is now in the Osler Library.

1665. Thaumatographia naturalis, etc. *12mo.* [O.] *Amstelodami.*

[**JOHNSTONE**, J. (*contd.*)]

1718. Theatrum universale omnium animalium, piscium, avium, quadrupedum, exanguium, aquaticorum, etc. *2 vols. 4to. pl. Amstelodami.*

Ruysch's edition of the author's *Historia Animalium*, illustrated by 260 plates of medieval quality. At the end of the history of fishes there is an appendix on the *Unicornus marinum* with figures of the narwhal drawn by a ship's doctor, but with no reference to the *Museum Wormianum*. The illustration of the Rhinoceros (pl. 38, vol. 2) is probably after Albrecht Dürer, who is not mentioned.

1755–69. Historia naturalis de Arboribus, 2 vols. in 1; Theatrum Universalie de Avibus . . . Insectis . . . Quadrupedibus, etc. *3 vols. folio. 374 pl.*

Actually three separate titles to constitute another edition.

1773–4. Histoire naturelle et raisonnée des différens oiseaux qui habitent le globe. *2 vols. folio.* Pt. I, *pp. (4)+23. 23 pl. 20 figs.* Pt. II, *pp. (4)+64. 62 pl. 1 fig. Paris.*

One of the numerous translations and printings of this popular author.

1903–7. *See* ANNANDALE AND ROBINSON.

JOHONNOT, JAMES.

[**1885**]. Glimpses of the animate world; or, [popular] Science and literature of natural history. *8vo. pp. xx+414. 54 figs. T. of c. New York.*

JOINT BULLETIN VERMONT BOTANICAL AND BIRD CLUB. *See* BULLETIN VERMONT BOTANICAL AND BIRD CLUB.

JOLY, H.

1886. L'homme et l'animal. 2nd ed. *Paris.*

JONES, C. A.

[**1863**]. Home walks and holiday rambles. *12mo. pp. vi+273. 4 pl. 8 figs. index. London.*

JONES, DONALD FORSHA [1890–].

1925. Genetics in plant and animal improvement. *8vo. pp. viii+568. 229 figs. T. of c. index. New York.*

JONES, FREDERIC WOOD [1879–].

1923–5. The mammals of South Australia. *3 pts. in 1 vol. 8vo. illust.* (Handbooks of the flora and fauna of South Australia.) *Adelaide.*

1929. Man's place among the mammals. *8vo. pp. 12+372. illust. London.*

JONES, GENEVIEVE ESTELLE.

[**1879**]**–86.** Illustrations of the nests and eggs of birds of Ohio. *See* JONES, H. E.

JONES, HOWARD E. and **others**.

1879–86. Illustrations of the nests and eggs of birds of Ohio with text. Illustrations by Mrs. N. E. Jones. Text by H. Jones. *2 vols. folio.* Vol. I, *pp. xxxviii+126. 37 pl. (col.).* Vol. II, *pp. 127–329. 31 pl. (col.). 2 indexes. Circleville, O.*

This work, illustrated by hand-colored lithographs, is among the rarest of *Americana ornithologica*. It was issued in 23 parts, having been commenced by Miss Estelle Jones and Miss Eliza J. Schulze. Plate LV is wrongly numbered LVI, but has been corrected in the present copy, which is from the John Lewis Child's library, with Child's hand-painted book-plate of a Barn Swallow. Attached also to the copy in hand are several letters from various people regarding the history and value of the work, from which we learn that only 90 copies were issued, that as much as $1,200 has been asked for a single copy, and that when Miss Genevieve Estelle died after a year's work on the illustrations her mother Mrs. N. E. Jones took up the task, working for over eight years to consummate what her daughter had at heart, she being really the originator of the work. Elliott Coues always spoke of the work in the most flattering terms, for instance: 'There has been nothing since Audubon in the way of pictorial illustrations of American ornithology to compare with the present work—nothing to claim an equal degree of artistic skill or scientific accuracy.'

JONES, JOHN MATTHEW and **others**.

1859. The Naturalist in Bermuda, etc. *8vo. pp. xii+200. 1 map. illust. text. London.*

In this work J. W. Wedderburn described the Birds and J. L. Hurdis further notes on the same subject.

******** and **GOODE**, G. B.

1884. Contributions to the natural history of the Bermudas. Vol. I, *pp. 23+352. 12 pl. Washington.*

This is Bull. 25 of the U.S. National Mus. in which J. M. Jones describes the Mammals, Capt. S. G. Reid the Birds, and S. Garman the Reptiles.

JONES, LYNDS [1865–].

1903. The Birds of Ohio. *8vo. pp. 241. front. (map fold.). index. Columbus.*

An annotated list of 338 species, a revision of Wheaton's *Report on the birds of Ohio*, 1882, in which 298 species were treated. In this copy the covers are bound in.

1909. The birds of Washington. *See* DAWSON, W. L. and BOWLES, J. H.

JONES, OWEN.

1910. Ten years of game-keeping. 3rd ed. *8vo. pp. xii+306. 15 pl. T. of c. index. London.*

JONES, THOMAS RYMER [1810–80].

1855. General outline of the organisation of the animal kingdom, and manual of comparative anatomy. 2nd ed. *8vo. pp. xli+842. 398 figs. 2 indexes. London.*

The first edition of this well-known textbook was, under a slightly different title, published in (1838)–41.

1858. The aquarian naturalist. *12mo. pp. 18+524. London.*

1861. General outline of the organization of the animal kingdom. 3rd ed. *8vo. pp. xlvii+841. 423 figs. 2 indexes. London.*

1867. The natural history of birds. *8vo. pp. 8+576. 215 text-figs. index. London.*

The first edition of this concise and popular handbook, which passed through at least three more printings.

[**1869–73**]. Cassell's book of birds. *See* BREHM, A. E.

1871. A General Outline of the Organization of the Animal Kingdom, etc. 4th ed. *8vo. 336 illust. London.*

n.d. The animal creation; a popular introduction to zoology. *8vo. pp. 22+456. 500 illust. London.*

JONSTONUS, JOHANNES. *See* JOHNSTONE (JONSTON), JOHN.

JORDAN, DAVID STARR [1851–].

1876. Manual of the vertebrates of the northern United States, including the district east of the Mississippi River, and north of North Carolina and Tennessee, exclusive of marine species. *12mo. pp. 343. addend. glossary. index. Chicago.*

The earliest independent publication on vertebrates by this famous author.

1882. Fishes of Ohio.

1888. A manual of the vertebrate animals of the northern United States, including the district north and east of the Ozark Mountains, south of the Laurentian Hills, north of the southern boundary of Virginia, and east of the Missouri River, inclusive of marine species. 5th ed. Enlarged and entirely rewritten. *8vo. pp. iii+375. glossary. index.* *Chicago.*

1894. (A) Manual of the vertebrate animals of the northern United States, etc. 7th ed. *8vo. pp. iii+375. glossary. index.* *Chicago.*

A reprint of the 5th ed., 1888.

**** and **EVERMANN**, B. W.

1896–1900. Fishes of North and Middle America. *4 vols. 8vo.* *Washington.*

A standard work by two well-known systematic ichthyologists.

1898–9. The Fur Seals and Fur-Seal Islands of the North Pacific Ocean, etc. *4 vols. 2 pts. 4to.* *Washington.*

This classic treatise includes not only a complete account of seals and seal-hunting but a description of the Birds of Pribylov Island by Wm. Palmer, 77 pages and plates; Mammals by F. W. True, and many other reports.

1898–99. *See* UNITED STATES. FISHERY REPORTS.

**** and **KELLOGG**, V. L.

1901. Animal Life: a first book of Zoology. *8vo. pp. ix+329. 1 pl. text-figs.* *London.*

1902. Animal life; a first book of zoology. *8vo. pp. ix+329. 180 figs. T. of c. glossary. index.* *New York.*

An American edition of this elementary treatise.

1902. Animal forms; a second book of zoology, by David S. Jordan . . . and Harold Heath. *8vo. pp. vii+258. 140 figs. T. of c. index.* *New York.*

1903. Animal studies; a text-book of elementary zoology for use in high schools and colleges. *8vo. pp. viii+459. 259 figs. T. of c. index.* *New York.*

In this edition the principal author collaborated with Vernon Kellogg and Harold Heath.

**** and **EVERMANN**, B. W.

1905. Fishes of the Hawaiian Islands. *Washington, D.C.*

A fundamental treatise excerpted from the *Bull. of the U.S. Fisheries Bureau.*

1905. Guide to the study of fishes. *2 vols.* *N.Y.*

A history of North American pisces in particular, including the fossil species. In the first volume are discussions of the work of Cope, Gill, and other American ichthyologists.

**** and **SEALE**, A.

1906. The Fishes of Samoa. *Washington, D.C.*

A well-illustrated and important volume, published in the *Bull. of the Fisheries Bureau*, U.S. Govt.

**** and **KELLOGG**, V. L.

1907. Evolution and animal life; an elementary discussion of the facts, processes, laws and theories relating to the life and evolution of animals. *8vo. pp. 12+489. 3 col. pl. 298 text-figs.* *New York.*

An important and popular contribution to the theory of evolution.

1907. Fishes. *N.Y.*

One of the many treatises by this famous ichthyologist.

1913. A Catalogue of the Fishes of Japan. *8vo. pp. 497. figs. in text.* *Tokio.*

standard work of reference first published in a Japanese Journal.

1917–20. The Genera of Fishes. Four parts. Each a separate index. *pp. 576.* A contribution to the stability of scientific nomenclature. Pt. I. From Linnaeus to Cuvier, 1758–1833. Pt. II. Agassiz to Bleeker, 1833–58. Pt. III. Guenther to Gill, 1859–80. Pt. IV. 1881–1920. *Stanford University, California.*

A most useful and erudite work of reference by the foremost American authority on ichthyology.

1919. Fossil Fishes of Southern California. *8vo.* Stanford University Publication.

**** and **HUBBS**, CARL LEAVITT [1894–].

1925. Japanese Fishes.

One of the latest and best authorities on the subject.

**** and **EVERMANN**, B. W.

1929. Manual of the vertebrate animals of the northeastern United States. 13th ed. *8vo. pp. 32 +446. illust. map.* *Yonkers-on-Hudson.*

****, **EVERMANN**, BARTON WARREN, and **CLARK**, HOWARD WALTON.

1930. Checklist of the Fishes and Fish-like Vertebrates of North and Middle America north of the northern boundary of Venezuela and Columbia. *8vo. pp. 1–670.* (Rept. of U.S. Comm. of Fisheries for 1928, Part II.) *Washington.*

JORDAN, DENHAM.

1892. Within an hour of London town among wild birds and their haunts, by a son of the marshes [pseud.]; ed. by J. A. Owen. *8vo. pp. (6) +314. T. of c.* *Edinburgh.*

1895. The wild-fowl and sea-fowl of Great Britain. *8vo. pp. (8)+326. 11 pl. T. of c. index.* *London.*

JORDAN, HERMANN J. [1877–].

1929. Allgemeine vergleichende Physiologie der Tiere. *8vo. pp. 28+761. illust.* *Berlin.*

An up-to-date treatise on vertebrate physiology; most useful for students.

JORDANS, ADOLF VON.

1914. Die Vogelfauna Mallorcas mit Berücksichtigung Menorcas und der Pieyusen; ein Beitrag zur Zoogeographie des Mediterrangebietes. *8vo. pp. [4]+163.* (University thesis.) *Bonn.*

An inaugural dissertation of considerable merit giving a systematic treatment of those Mediterranean birds frequenting Mallorca and several neighboring islands. A presentation copy from the author, from the Cabanis-Reichenow collection.

JORNAL DE SCIENCIAS MATHEMATICAS, PHYSICAS, E NATURAES. (**Academia das Sciencias de Lisbõa.**) *Lisbon.*

1866–88. Series 1.

1889–1910. Series 2.

1917–*date.* Series 3.

JORNAL DE SCIENCIAS NATURAIS.

1921–*date.* *Lisbon.*

JOSSELYN, JOHN [*fl.* 1630–75].

1672. New-Englands rarities discovered; in birds, beasts, fishes, serpents, and plants of that country. *8vo. pp. 4+114. 1 pl. text-figs.* *London.*

The extremely rare first edition of a famous treatise.

[**JOSSELYN,** J. (*contd.*)]

1678. New Englands rarities discovered; in birds, beasts, fishes, serpents and plants of that country, etc. *12mo. illust. with cuts.* Pub. by G. Widdowes. Sabin 36674. Church 608. *London.*

This very rare edition of the first book on American (general) Natural History resulted from the author's visit to the American continent in 1638–9 and in 1663–71. The McGill collection also has the first 1672 edition, as well as the 1865 reprint.

1865. New-England's rarities discovered in birds, beasts, fishes, serpents, and plants of that country. With an introduction and notes, by Edward Tuckerman. *8vo. pp. viii+169. 12 figs. Boston.*

As nearly as possible an exact facsimile of the original edition of this quaint and curious treatise, one of the earliest, on the Natural History of New England. The portion relating to birds occupies pp. 39–47. Apparently only 250 copies were printed.

JOURDAIN, FRANCIS CHARLES ROBERT.

1902–20. *See* VICTORIA HISTORY OF THE COUNTIES OF ENGLAND.

1906–9. The eggs of European birds. *4 pts.* (all pub.). *8vo.* Pt. I, *pp. iv+80. 13 pl.* (*col.*). *addend.* Pt. II, *pp. 81–160. 14 pl.* (*col.*). Pt. III, *pp. 161–240. 14 pl.* (*col.*). Pt. IV, *pp. 241–320. 10 pl.* (*col.*). *London.*

Originally intended to consist of about 10 parts. Following the scientific and vernacular names of each species come the British and foreign names with a short account of breeding range, nest, number, weight, and measurement of eggs, &c., with excellent illustrations of same. The work was never completed, the author possibly allowing it to lapse in favor of the larger H. E. Dresser's *Eggs of the Birds of Europe*, 1905–10.

1911–13. The British bird book. *See* KIRKMAN, F. B. B.

1912. A hand-list of British birds, &c. *See* HARTERT, E. and JOURDAIN, F. C. R.

[**1912**]. Hybrids between black-game and pheasant. *8vo. pp. 146–9. London.*

1919–20. *See* MULLENS AND SWANN, KIRKE.

1926. The natural history of the Oxford district. *See* WALKER, JAMES J.

JOURDAN, ANTOINE JACQUES LOUIS [1788–1848].

1834. Dictionnaire raisonné . . . des Termes usités dans les Sciences naturelles, etc. *2 vols. 8vo. London and Paris.*

JOURNAL OF ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA. 1817–1918. *See* ACADEMY OF NATURAL SCIENCES, PHILADELPHIA.

JOURNAL DE L'ANATOMIE ET DE LA PHYSIOLOGIE NORMALES ET PATHOLOGIQUES DE L'HOMME ET DES ANIMAUX. 1864–1919. *Paris.*

JOURNAL OF ANATOMY. (Anatomical Society of Great Britain.) 1866–*date*. *London.*

JOURNAL OF THE BOMBAY NATURAL HISTORY SOCIETY. 1886–*date*. *See* BOMBAY NATURAL HISTORY SOCIETY.

The important English journal on natural history published in the Far East. Most of the accounts of the Indian flora and fauna first appeared in this periodical.

JOURNAL OF THE BOSTON SOCIETY OF NATURAL HISTORY. 1834–63. *See* BOSTON SOCIETY OF NATURAL HISTORY.

JOURNAL OF THE BRITISH SOCIETY OF AVICULTURE.

1918–30. Editor: J. N. Wynne Williams. *8vo.* Quarterly; later irregular. *Yeovil, England.*

This is a useful and practical periodical, publishing numerous short papers of interest, by Wesley Page, F. W. Smalley, L. P. Luke, Mrs. L. C. Prideau, and other well-known writers on birds in general, their protection, their domestication, &c.

JOURNAL OF THE CINCINNATI SOCIETY OF NATURAL HISTORY. 1878–1917. *See* CINCINNATI.

JOURNAL OF COMPARATIVE MEDICINE AND VETERINARY ARCHIVES.

New York, Philadelphia.

1880–1903. 1903–*date*.

JOURNAL OF THE DERBYSHIRE ARCHAEOLOGICAL AND NATURAL HISTORY SOCIETY.

1879–98. Vols. 1–20.

JOURNAL OF THE ELLIOTT SOCIETY OF NATURAL HISTORY OF CHARLESTON AND SOUTH CAROLINA.

1857–60. 1–3 (all pub.). *See* ELLIOTT SOCIETY, &c.

JOURNAL OF ENTOMOLOGY AND ZOOLOGY. (Pomono College.) 1909–*date*. *Claremont, Cal.*

JOURNAL OF EXPERIMENTAL ZOOLOGY. 1904–30. *Baltimore.*

An important periodical devoted to technical research.

JOURNAL D'HISTOIRE NATURELLE. 1787–9–92. *Paris.*

JOURNAL INTERNATIONALE D'OISELLERIE. (In Russian.)

The original Russian title of this periodical, mostly devoted to Cage Birds, may be found in the Journal List of the *International Cat. of Scientific Publications*, 1903, p. 171, item 206.

JOURNAL OF THE INTERNATIONAL ORNITHOLOGICAL COMMITTEE. *See* ORNIS: as well as under the heading CONGRESS.

JOURNAL OF THE MAINE ORNITHOLOGICAL SOCIETY, THE.

1899–1911. *8vo. illust.* Vols. I–XIII. (All pub.) Editor, J. Merton Swain. *Bangor, Maine.*

During the 13 years of its existence this periodical published numerous papers of scientific merit by American ornithologists of repute, and while most of the communications deal with local birds, a number of others discuss more distant avifauna. It may be added that the *Journal* furnishes, without doubt, the best original records of the bird life of Maine. The editor was particularly active in describing avian species, giving a complete history of many widely-distributed birds; in like manner, O. W. Knight, F. T. Noble, A. H. Norton, Wm. Powers, Dana W. Sweet, Leslie Lee, H. H. Brock, A. L. Lane and many others well known in the annals of New England ornithology furnished contributions.

JOURNAL OF MAMMALOGY.

1919–*date*. Vol. I→. *8vo. illust. Baltimore, Md.*

The organ of the American Society of Mammalogists, founded in 1919; it is the most important special American periodical on the subject of its title.

JOURNAL OF MARINE ZOOLOGY AND MICROSCOPY. 1893–7. *Jersey.*

JOURNAL OF MICROSCOPY AND NATURAL SCIENCE. 1880–*date*.

JOURNAL OF MORPHOLOGY AND PHYSIOLOGY. (**Wistar Institute of Anatomy and Biology.**) **1887**–*date.*
Boston, Lancaster, Philadelphia.

JOURNAL OF THE MUSEUM OF COMPARATIVE OOLOGY.
1919–20. (All pub.) Annual. *illust.* Edited by Wm. Leon Dawson, Santa Baraba, Cal.

The Museum is a 'chartered public institution devoted to the study of the Birds of the World, their nests and eggs'. In addition to the chief contributor, William Leon Dawson, papers were furnished by J. Hooper Bowles, A. C. Bent, and others.

JOURNAL DES MUSEUM GODEFFREY. **1873–1910.** *Hamburg.*

JOURNAL OF NATURAL PHILOSOPHY, CHEMISTRY, AND THE ARTS.
By William Nicholson.

1797–1802. [First Series.] *5 vols. 4to.*

1802–13. New Series. *36 vols. 8vo.*

After the 36th volume of the New Series the Journal was incorporated with the *Philosophical Magazine.*
A very rare but important journal.

JOURNAL OF NATURAL HISTORY FOR THE COUNTY OF LANCASHIRE, etc.
Darwen.
1909–14. Continued as (The) Lancashire and Cheshire Naturalist.

JOURNAL DES NATURALISTES. *Mâcon.*
See SOCIÉTÉ D'HISTOIRE NATURELLE DE MÂCON. Bulletin.

JOURNAL FÜR NATURWISSENSCHAFT UND MEDICIN. **1810.** *Frankfurt-a-M.*

JOURNAL FÜR DIE NEUESTE HOLLÄNDISCHE MEDICINISCHE UND NATURHISTORISCHE LITERATUR. **1802–4?**
Herborn.

JOURNAL FÜR ORNITHOLOGIE. Ein Centralorgan für die gesammte Ornithologie.
1853–1930. Vols. 1–79. *4to and 8vo. illust. many supplements and indexes.* Herausgegeben von J. Cabanis, (later) E. Baldamus und A. Reichenow.
Cassell, Leipzig, and Berlin.

This the premier German periodical on general ornithology is the oldest current magazine on the subject in existence, antedating *Ibis* by six years. With that journal and the *Auk* it probably comprises three-fourths of the original and essential literature on the subject of birds in their various relations. From these three sources have been drawn the great majority of references to and illustrations of new discoveries in avian life. The *Journal* has had on its editorial staff (from its beginning) the best known and most important of the German ornithologists. Among these may be mentioned not only the editors, Cabanis and Reichenow, but Blasius, Ch. L. Brehm, Hartlaub, Reichenbach, H. Schlegel, C. J. Sundevall, Tschusi zu Schmidhofen, Carl Hennicke, O. Haase, F. Braun, Homeyer, Otto Finsch, Karl Russ, R. Böhm, Thienemann, Prince Max of Wied, Stejneger, Gundlach, Madarász, Helm, C. Parrot, E. Rey, Graf Zedlitz, O. Neumann, H. Schalow, and many others.
The original articles are as a rule admirably written, well edited, and carefully illustrated. The (brief) reviews of current literature are of especial value to the student, and the *Journal* has, fortunately for science, survived the wrack and ruin of a disastrous World War.

JOURNAL DE LA PHYSIOLOGIE DE L'HOMME ET DES ANIMAUX. **1858–63.**
Paris.

JOURNAL OF PHYSIOLOGY. **1878**–*date.*
Cambridge, London.

JOURNAL DE PHYSIQUE, DE CHIMIE, D'HISTOIRE NATURELLE ET DES ARTS. **1773–1823.** *Paris.*

JOURNAL RUSSE DE ZOOLOGIE. (Wanting.)

JOURNAL OF SCIENCE. **1864–85.** *London.*

JOURNAL DES SCIENCES NATURELLES, AGRICOLES, MÉDICALES, PHYSIQUES ET ASTRONOMIQUES. **1850.** *Geneva.*

JOURNAL (THE) OF THE SOUTH AFRICAN ORNITHOLOGISTS' UNION.
1905–16. Published at Pretoria, Transvaal. *8vo. illust. indexes.* Edited by a Committee of the Union. Semi-annual. Printed in London. After issue of eleven Volumes and Bulletins ('Popular Bulletins' and 'Bulletin Series'), the Journal was, in 1916, incorporated with the *South African Journal of Natural History.*

The last number gives notice of the (intended) dissolution of the S.A.O.U., its amalgamation with the Transvaal Biological Society, and the suspension of publication of this *Journal.* Later it was merged in the *South African Journal of Natural History.*
This periodical, founded chiefly through the activities of W. L. Sclater, at that time Director of the South African Museum, Cape Town, and continued by the energetic labors of the editorial committee and especially by A. K. Haagner, Director of the Zoological Gardens, Pretoria, contains many important contributions to African ornithology. The first volume opens with a biography of the better-known African ornithologists by W. L. Sclater, followed during the succeeding eleven years by essays that form a most valuable addition to our knowledge of African birds. It is to be regretted that a magazine so ably edited should not have received the support it deserved.

JOURNAL OF TRAVEL AND NATURAL HISTORY. *London.*
1868–9. (All pub.) Edited by A. Murray.

JOURNAL DES VEREINS DER LIEBHABER VON SING- UND ANDEREN FREILEBENDEN VOGELN. [German translation of the Russian title.]
1902–8. (?All pub.) Organ of the Ornithological Section of the Imperial Russian Society for Acclimatization. Quarterly. *8vo. illust.* Editor: D. M. Rossinsky. *Moscow.*

JOURNAL OF THE WILD BIRD INVESTIGATION SOCIETY.
Irregular. Edited by W. E. Collinge, University of St. Andrews, Scotland. Vol. 1, Nov. 1919, No. 1; Mar. 1920, No. 2; Feb. 1921, No. 3.

Three numbers were issued when the *Journal* suspended publication in 1922. It was devoted chiefly to the preservation and protection of native British birds. Short papers were contributed by the editor, George Abbey, L. T. Thornton, Miss Rintoul, and others.

JOURNAL OF THE WILSON ORNITHOLOGICAL CHAPTER OF THE AGASSIZ ASSOCIATION. *See also* WILSON BULLETIN.
1893. Published by R. M. Strong. *8vo.* Continuation of the *Wilson Quarterly. Oberlin, Ohio.*

Notes from Frank L. Burns (68): vols. 1 and 2. Jan. and June, 1893. 16+8 pp.
These issues contain chiefly matters (membership, &c.) relating to the Chapter.

JOURNAL FÜR VOGELZUCHT. *See* PTIZEWODNOE.

JOURNAL OF ZOOLOGICAL RESEARCH. **1916–18.** *London.*

JOURNAL DE ZOOLOGIE. 1872–7. *Paris.*

JOURNAL OF ZOÖPHILY. (Wanting.)

JUDD, SYLVESTER DWIGHT.
1898. Cuckoos and shrikes in their relation to agriculture. *See* BEAL, F. E. L.

JUDD, WILBUR WEBSTER.
1907. The birds of Albany County. *8vo. pp. 178. 21 pl. T. of c. index.* *Albany, N.Y.*
One of the first edition limited to 300 copies. An important monograph.

JUKES, JOSEPH BEETE [1811–69].
1847. Narrative of the surveying voyage of H.M.S. Fly, commanded by Captain F. P. Blackwood, R.N., in Torres Strait, New Guinea, and other islands of the Eastern Archipelago, during the years 1842–1846: together with an excursion into the interior of the eastern part of Java. *2 vols. 8vo.* Vol. I, *pp. xii+423. 9 pl. 1 map (fold.). 15 figs. T. of c.* Vol. II, *pp. v+362. 8 pl. 1 map (fold.). 3 figs. T. of c. 10 append.* *London.*

JUNGERSEN, H. F. E. **1899.** *See* DENMARK. INGOLF-EXPEDITION.

JUNIOR NATURALIST MONTHLY. (**New York State College of Agriculture.**) **1899–1907.** (All pub.) *Cornell University.*

KABINET DER NATUURLIJKE HISTORIEN WETENSCHAPPEN, KONSTEN EN HANDWERKEN. 1719–27. *Amsterdam.*

KAHLE, M. **1924.** *See* BREHM, A. E.

KAIDORI. (**Aviculture.**) Printed in Japanese. *Tokyo.*
1930. June. Vol. II, No. 3. *illust.*
Published by the Japan Cage Bird Club.

KAISER, ALFRED.
[**1891**]. Beiträge zur Ornithologie von Aegypten. *8vo. pp. 92.* *Wien.*
A systematic catalogue of 194 avian species observed in the Nile valley during 1884–7. The German and native synonyms are also furnished. From Prof. Reichenow's library.

KAISERLICH-KÖNIGLICH NATURHISTORISCHE HOFMUSEUMS. *See* NATURHISTORISCHES STAATSMUSEUM.

KALBERMATTEN, LEO VON.
1891. Sumpfleben und Jagden von Wien bis Batum in Klein-Asien. *8vo. pp. 6+180. 38 illust. map.* *Leipzig.*

KALENDER FÜR GEFLÜGELZÜCHTER UND VOGELFREUNDE.
1891–2. Jahrbuch für Geflügel- und Landwirthe, für Liebhaber, Züchter und Aussteller, hrsg. von Bruno Dürigen. *illust.* *Leipzig.*

KALENDER DER NATUR.
1858. 1 Jahrgang (all pub.?). *8vo.* *Stuttgart.*
Among the contributors were Blasius, Brehm, and other well-known naturalists.

KALISCHER, OTTO.
1905. Das Grosshirn der Papageien in anatomischer und physiologischer Beziehung. *4to. pp. 105. 10 pl.* *Berlin.*
An author's reprint from the Cabanis-Reichenow collection on the brain of the parrot both in its morphological and physiological connections. A valuable contribution to the internal anatomy of birds.

KALM, MATTHIAS. **1822–3.** *See* THUNBERG, J. C.

KAMPEN, P. N. VAN.
1906. *See* WICHMANN, C. E. A.
1927. *See* IHLE, J. E. W.

KANSAS ACADEMY OF SCIENCE. (**1871 as Kansas Natural History Society.**)
1916–19. Bulletin.
1868/72–*date*. Transactions.

KANSAS CITY SCIENTIST. (**Kansas City Academy of Sciences.**)
Valparaiso. Ind.; Kansas City, Mo.
1885–8. As Hoosier Naturalist.
1890. As Naturalist.

KANSAS NATURAL HISTORY SOCIETY. *See* KANSAS ACADEMY OF SCIENCE.

KANSAS UNIVERSITY; NATURAL HISTORY SOCIETY. *See* OBSERVER OF NATURE.

KAO CH'ÊNG [11th cent.].
1472. Shih wu chi yüan; An encyclopedia, including the animal kingdom, chüan 10. *29·8 × 18·8 cm.* [G.]

KAPPERS, CORNELIUS UBBO ARIËNS.
1929. The evolution of the nervous system in invertebrates, vertebrates and man. *8vo. pp. 6+335. illust.* *Haarlem.*

KARLSRUHE. Naturwissenschaftl. Verein, Karlsruhe.
1862–*date*. Verhandlungen. *indexes.*

KARR, A.
1860. La Pêche en eau douce . . . dictionnaire. *Paris.*

KATALOG DER VEREINIGTEN BIBLIOTHEK FÜR NATUR- UND ERDKUNDE.
1904. *Halle.*

KAUP, JOHANN JACOB [1803–73].
1835–7. Das Theirreich in seinem Hauptformen Systematisch beschrieben. *8vo. 3 vols. illust.* *Darmstadt.*
This is one of the numerous and important works of a noteworthy systematist. His first large work on comparative anatomy and the classification of fauna appeared in 1827.

1844. Classification der säugethiere und vögel. *8vo. pp. 10+144. 2 pl.* *Darmstadt.*

[**1847**]. Monographien der Genera der Falconidae. *5 pts. in 1 vol. 4to. pl.* *Jena.*

1849. Ueber Classification der Vögel. *8vo. pp. 10 +34.* *Darmstadt.*
This is the first zoological lecture given by Professor Kaup. It is quite distinct from his *Classification der Säugethiere und Vögel*, although detailing equally his personal views on classifying birds.

KAZAN. Imperial University.
1834–*date.* Uchenyia Zapiski.

KEARTLAND, G. A. **1896.** *See* HORN, W. A., Report on the . . . Scientific Expedition.

KEARTON, CHERRY [1871–].
[**1914**]. Wild life across the world, introduction by Theodore Roosevelt. *4to. pp. xxvii+286. 92 pl. T. of c.* *London.*
An interesting account of photographing wild life in India, Africa, and America.

[**1923**]. Photographing wild life across the world. *4to. pp. 319. 55 pl. T. of c.* *London.*
Contains about two-thirds of the author's *Wild Life across the World*, with new records of his more recent experiences.

KEARTON, RICHARD [1862–1928].
1883–88? Eggs and egg collecting. *See* SWAYSLAND, W.

1890. Birds' nests, eggs, and egg-collecting. *8vo. pp. 71. 16 pl. (col.). index.* *London.*

1895. British Birds' Nests, How, Where and When to Find and Identify them; introduction by R. Bowdler Sharpe. *8vo. photos.* *London.*

1898. British birds' nests, how, where, and when to find and identify them. *8vo. pp. xx+368. front. 126 figs.* *London.*
This popular work since its first appearance in 1890 has been reprinted with additions several times.

1898. Wild life at home, how to study and photograph it. *8vo. pp. xv+188. 96 figs. T. of c. index.* *London.*

1898. With nature and a camera. *8vo. pp. xvi+368. front. 180 figs. T. of c. index.* *London.*

1899. Our rarer British breeding birds; their nests, eggs, and summer haunts. *8vo. pp. xvi+149. front. 62 pl.* *London.*

1900. Our Bird Friends. *8vo. 100 photos.* *London.*
The first edition of this popular book.

1901. Our bird friends. *8vo. pp. xvi+215. front. 100 figs. T. of c. index.* *London.*

1901. Wild Life at Home. *8vo.* *London.*

1906. Our bird friends. 3rd ed. *London.*

1922. At home with wild nature. *8vo. pp. xii+163. 62 pl. T. of c. index.* *London.*

1924. *See* WHITE, *Rev.* GILBERT.

******** and **BENTHAM,** HOWARD.
[**1925**]. The pocket book of British birds. *12mo. pp. 10+389. 191 text-figs.* *London.*
This otherwise useful book is wretchedly illustrated.

KEATING, WILLIAM HYNOLITUS.
1825. Narrative of an Expedition to the Source of St. Peter's River, Lake Winnepeek, Lake of the Woods . . . in 1823. *2 vols. with append. 8vo. illust.* *London.*
This important Canadian-American item of interest to zoologists and botanists devotes vol. II Appendix in part to the zoology of the Expedition by T. Say, the famous American naturalist.

KEELER, CHARLES AUGUSTUS [1871–].
1893. Evolution of the colors of North American land birds. *8vo. pp. xii+361. 19 pl. (col., 5 fold.). T. of c. bibliogr. index.* *San Francisco.*
This essay, founded more on theory than on fact, brought about a lengthy correspondence between a reviewer of the work and the author. See the *Auk*, vol. x, 1893, pp. 189–96 and 373–80. Issued as *Occasional Papers of the California Academy of Sciences*, III. The copy in hand is an autographed presentation.

1899. Bird notes afield; a series of essays on the birds of California. *8vo. pp. vii+352. T. of c. append.* *San Francisco.*
The appendix contains a descriptive list of California land birds with key. A second amended edition (q.v.) was issued in 1907. The present copy is an autographed gift from the author to Dr. Casey Wood.

1899. A first glance at the birds; being an introductory part to 'Bird notes afield'. *8vo. pp. 51.* *San Francisco.*

[**1907**]. Bird notes afield; essays on the birds of the Pacific coast. *8vo. pp. ix+226. front. 15 pl. append. index.* *San Francisco.*

KEITH, ARTHUR [1866–].
1928. Darwinism and what it implies. *pp. 8+56.* *London.*

KELAART, EDWARD FREDERICK [1818–60].
1852–3. Prodromus Faunae Zelanicae, etc. *2 vols. 4to. with append.* *Colombo, Ceylon.*
A classic contribution to the natural history of Ceylon, containing not only the author's description of several new species of Sinhalese fauna but notes by E. Blyth on rare birds and other vertebrates; by J. E. Grey on some of the mammals, &c.

KELLER, FRANZ CARL.
1890. Ornis Carinthiae. Die Vögel Kärntens. *8vo. pp. 6+322. T. of c. index.* *Klagenfurt.*
A rather popular account of the birds local to the province of Kärnten. There are no illustrations.

KELLNER, AUGUSTUS IMMANUEL.
1828. Natuurlijke historie der kanarievogelen. *pp. viii+104.* *Amsterdam.*
A rare second edition of a popular work on canary birds.

KELLOGG, VERNON LYMAN [1867–].
1902. Animal life. *See* JORDAN, D. S.

1903. Animal studies, &c. *See* JORDAN, D. S.

1907. *See* JORDAN, D. S.

1911. The animals and man; an elementary textbook of zoology and human physiology. *8vo. pp. x+495. 244 figs. T. of c. 2 append. index.* *New York.*

KELSALL, JOHN EDWARD and **MUNN,** PHILIP WINCHESTER.
1905. The birds of Hampshire and the Isle of Wight. *8vo. pp. xliv+371. front. 15 pl. map (col.). T. of c. index.* *London.*
An annotated list of the 294 species named, with notes on their distribution, as well as a list of the species recorded by Gilbert White at Selborne in 1774.

KEMPTON, R. T. **1929.** *See* LITTLE, MALCOLM EDGEWORTH.

[**KENDALL,** EDWARD AUGUSTUS] [?1776–1842].
1799. The canary bird; a moral fiction, interspersed with poetry. *32mo. pp. xi+148. 12 figs. T. of c.* *London.*

KENNEDY, Alexander William Maxwell Clark [1851–94].
1868. The birds of Berkshire and Buckinghamshire. *8vo. pp. xiv+232. 4 pl. (col.). 1 fig. T. of c. index.* *Eton.*

KENNEDY, Edmund B. [d. 1848].
1852. Account of [his] expedition for the exploration of the Cape York peninsula in tropical Australia. (*See* MACGILLIVRAY, JOHN. Narrative of the voyage of H.M.S. Rattlesnake, vol. 2, pp. 117–276.)

1903. Thirty Seasons in Scandinavia. *8vo. illust.*
Author's pres. copy, with MS. notes and some interesting cuttings and letters from him inserted loose, referring to the natural history of northern Europe.

KENNERLEY, C. B. R. **1855–9.** *See* UNITED STATES. PACIFIC RD. SURVEY.

KENTUCKY ACADEMY OF SCIENCE, LEXINGTON.
1914–*date.* Transactions.

KENYON, F.C. **1868.** *See* AMERICAN NATURALIST.

KEOGH, John [1681?–1754].
1739. Zoologia medicinalis Hibernica, etc. *8vo. pp. 16+167.* *Dublin.*

KEPNER, W. A. **1928.** *See* DAHLGREN, ULRIC.

KERGUELEN ISLAND, ZOOLOGY OF. *See* ROYAL SOCIETY OF LONDON, 1879.

KERMODE, Francis [1874–].
1904. Catalogue of British Columbia birds. *8vo. pp. 69. index.* *Victoria, B.C.*
A useful catalogue (with a brief description) of 363 species.

KERMODE, Philip M. C. and **others.**
1882. Report on the migration of birds in the spring and autumn of 1881. *See* BROWN, J. A. H-. and others.

KERR, John Graham [1869–].
1907. The work of John Samuel Budgett. *See* BUDGETT, J. S.

1921. Zoology for medical students. *8vo. pp. x+485. 199 figs. T. of c. index.* *London.*

KERR, Richard.
n.d. Nature's curiosity shop; or, Recreations in nature-study. *8vo. pp. xii+177. 46 pl. (20 col.). T. of c.* *London.*

KERSHAW, Cicely.
1925. Familiar birds of Ceylon. *12mo. pp. [2]+144. 44 pl.* *Colombo, Ceylon.*
This is a very useful guide, especially as it contains identification tables based on both the size and predominant colors of the common birds of the Island.

KESSLER, A. E.
1805. Pruefung Gall'schen Systems Hirn und Schaedel-Lehre. *illust.* *Jena and Leipzig.*
A useful contribution to the history of comparative anatomy.

KEULEMANS, John Gerrard [1842–1912].
1869–76. Onze Vogels in huis en tuin, beschreven en afgebeeld. *3 vols. 4to. 200 col. pl. T. of c.* Vol. I. 1869. *pp. 3+131. 70 col. pl.* Vol. [II]. [1873]. *pp. 3+133. 70 col. pl.* Vol. [III]. [1876]. *pp. 3+110. 60 col. pl.* *Leyden.*
A collection of colored prints of various birds by a celebrated artist. Keulemans not only lithographed the original outlines but afterwards colored them by hand. The Blacker Library has a portfolio of original drawings by this master illustrator.

1873. Original sketches and colored drawings, to illustrate Sir Walter Buller's Birds of New Zealand. *See* ORIGINAL DRAWINGS.

n.d. Opmerkingen over de vogels van de Kaapverdische eilanden en van Prinseiland (ilha do principe) in de Bogt van Guinea gelegen. *4to. pp. 39.*

KEYES, Virginia M.
1913. Catalogue of a collection of books on ornithology in the library of John E. Thayer. *See* THAYER, J. E.

KEYSER, Leander Sylvester [1856–].
1894. In bird land. *8vo. pp. 269. T. of c. append. index.* *Chicago.*

1902. Birds of the Rockies; plates by Louis Agassiz Fuertes . . . and a check list of Colorado Birds. *8vo. pp. xiv+355. front. (col.). 7 pl. (3 col.). 39 figs. (8 full page). T. of c. index.* *Chicago.*

1907. Our Bird Comrades. *8vo.* *Chicago.*

1912. News from the birds. *8vo. pp. xxii+229. 21 figs. T. of c. index.* *New York.*
The first edition was issued in 1898.

KEYSERLING, Alexander Friedrich Michael Leberecht Nikolaus Arthur von [1815–91] and **BLASIUS,** J. H.
1840. Die wirbelthiere Europa's. Erstes Buch. (all pub.). *8vo. pp. 98+248.* *Braunschweig.*

KHARKOF UNIVERSITET. Obshchestvo Ispytateleĭ Prirody.
1873–87. Trudy.

1893–*date.* Trudy.

French title: Société des Naturalistes à l'Université Impériale de Kharkov.

KHAYL-NĀMA.
1829. A treatise on the horse. Persian MS. found in Hyderabad, Deccan, dated A.H. 1245. *small 8vo. n.p.* (Probably *Teheran, Persia.*) Anon.
This beautifully transcribed manuscript does not contain the name of the original author or the scribe but is evidently one of the standard works on that favored oriental animal, the horse.

KHOLODKOVSKIĬ, N. A. *See* CHOLODKOWSKY, N.

KHUEN, A.
1864. Blicke in das Leben der Thiere, etc. 2nd ed. *8vo.* *Wien.*

KIDD, Benjamin [1858–1916].
1921. A philosopher with nature. *pp. 8+211.* *London.*
An interesting and instructive series of essays.

KIDD, WALTER AUBREY [1852–].

1907. The sense of touch in mammals and birds with special reference to the papillary ridges. *8vo. pp. viii+176. 174 figs. T. of c. append. London.*

A small introduction or anatomical basis for the consideration of the sense of touch. Reviewed by Dr. Casey Wood in the *Journal A.M.A.*, Nov. 1907.

KIDD, WARING.

1849. The letters of Rusticus. *See* NEWMAN, E.

KIDDER, DANIEL PARISH [1815–91] and **FLETCHER,** J. C.

1857. Brazil and the Brazilians, portrayed in historical and descriptive sketches. *8vo. pp. 630. 19 pl. (2 col., birds). 125 figs. 3 maps (1 fold.). T. of c. 9 append. Philadelphia.*

The references to birds and other animals are numerous, including such species as Jacana, Boat-bill, Toucan, Harpy Eagle, Umbrella bird, Variegated Breast Parrot, and Rose-colored Spoonbill, the two last depicted in color.

KIDDER, J. H.

1875. Ornithology of Kerguelen Island. *See* COUES, ELLIOTT, 1842–99.

KIEF. Travaux de la Société Ornithologique de Kief du nom de K. Th. Kessler, sous la rédaction du président de la société V. M. Artobolevsky. The titles in both Russian and French, the text in Russian only.

1913. Tome I. Livraison 1. *royal 8vo. pp. 219.* (All pub.?) *Kief, Russia.*

A note on the cover of the first number says Tome I. Livraison 2, 1914, 'is in the press'. It has not been seen by the Compiler.
The initial issue of this valuable contribution to scientific ornithology was established in memory and honor of Professor Kessler, the founder of the Society. It contains a paper by the Russian zoologist, B. Dombrowski, on the birds of Colchis, Adzarien, and neighboring localities and two essays by E. A. Charlemagne. Like other Russian periodicals devoted to science it was swept aside by the World War.

KIEF. Universitet Sv. Vladimira. Obshchestvo Estestvoispytateleĭ.

1921–2. Sbornik.

1870–*date.* Zapiski.

French title: Société des Naturalistes de Kiev.

KIEL. *See* KOMMISSION Z. WISSENSCH. UNTERSUCHUNG D. DEUT. MEERE IN KIEL.

KIELSEN, FREDERIK CHRISTIAN [1774–1850].

1835. Icones amphibiorum. *4to. pp. 4. 42 pl. Hafniae.*

A useful atlas of the amphibia.

KILLERMANN, SEB.

1910. Die Vogelkunde des Albertus Magnus. *8vo. pp. viii+100. T. of c. Regensburg.*

Appended is a list of the birds described by the author, to whom the editor attributes a wide knowledge of natural history. Although Albertus Magnus drew most of his information from Pliny and Aristotle yet there are many observations and descriptions of species in his works that are wholly original.

KINBERG, JOHAN GUSTAF HJALMAR [1820–91].

[**1875**]. Svinets tänder. *8vo. pp. 40. Stockholm.*

[**1876**]. Svinets hufvudskål; några iakttagelser. *8vo. pp. 7. Stockholm.*

[**1879**]. Sueda fogelägg. *8vo. pp. 13. Stockholm.*

Author's reprint of an article on Swedish birds' eggs.

n.d. Utdrag ur arkäologisk zoologi. *8vo. no t.p. pp. 48.* [*Stockholm.*]

KING, CLARENCE [1842–1901]. [**1877**]. *See* RIDGWAY, R.

KING, PHILIP PARKER [1793–1856].

1839. Narrative of the surveying voyages of His Majesty's ships Adventure and Beagle, between the years 1826 and 1836. *3 vols. and append. pl. diagr. maps. London.*

KING, WILLIAM ROSS [1822–? 94].

1866. (The) sportsman and naturalist in Canada, or Notes on the natural history of the game, game birds, and fish of that country. *8vo. pp. xv+334. 6 pl. (col.). 13 figs. T. of c. append. index. London.*

Observations on the animal life of Canada, during a three years' residence in the country. Many of the notes refer to birds and other animals, three of the colored plates being ornithological. There may have been two impressions of the work, as the sign '$' on page 293, line 5, appears to have been omitted from certain copies, but is present in this one. Cf. *Cat. Ayer Ornith. Lib.*, 1926, p. 350.

KING GEORGE AND QUEEN CHARLOTTE, VOYAGES OF THE. *See* DIXON, GEORGE, 1789; *also* PORTLOCK, NATHANIEL, 1789.

KINGSLEY, CHARLES [1819–75].

1871. At last; a Christmas in the West Indies. *2 vols. 12mo.* Vol. I, *pp. xii+316. 6 pl. 16 figs. T. of c.* Vol. II, *pp. vii+315. 7 pl. 12 figs. T. of c. London.*

An interesting account of the author's visit to these islands, with notes on its natural history. Amongst the birds mentioned are black vultures, 'tick' birds, toucans, goatsuckers, the hanging nests of merles, with a descriptive account of the home of the Guacharos birds in the caves round the island of Trinidad. A second edition of this justly popular work was published in 1872, with numerous reprints to 1887, followed by a third edition in 1889 with again reprints to 1905, and still another in 1910.

1910. At last; a Christmas in the West Indies. *12mo. pp. x+334. 40 figs. T. of c. London.*

KINGSLEY, JOHN STERLING [1854–1930].

1868. *See* AMERICAN NATURALIST.

1882. The naturalist's assistant; a hand-book for the collector and student, with a bibliography of fifteen hundred works necessary for the systematic zoölogist. *8vo. pp. (4)+228. 40 figs. bibliogr. index. Boston.*

1882–3. *See* SCIENTIFIC AND LITERARY GOSSIP.

1885. The Standard Natural History. *6 vols. 8vo. Boston.*

One of the best semi-popular treatises on the general subject. The Vertebrata are described by well-known writers, the three volumes devoted to these sub-classes and the separate section on Mammalia being introduced by R. R. Wright, who also wrote on the Ungulata, Primates, and other captions; chapters on Batrachia by E. D. Cope; Reptilia by H. C. Bumpus; Aves by L. Stejneger, D. Elliot, W. B. Barrows, and J. S. Kingsley. A portion of the extensive treatment of Mammals was supplied by T. Gill, E. Coues, W. N. Lockington, W. B. Scott, S. Lockwood, and G. Macloskie.

[**1888**]. The Riverside Natural History. Vol. IV. Birds. *pp. (8)+566. front. (col.). 24 pl. (1 col.). 273 figs. T. of c. bibliogr. index. Boston.*

This work differs from the *Standard Natural History*, 1885, only in having a different title-page and with two of the plates in color, one being used as a title-page, as well as an added bibliography at the end of the volume, pp. 549–56.

1898. Elements of comparative zoology. *12mo. pp. vii+357. 148 figs. T. of c. append. index. New York.*

1912. Comparative anatomy of vertebrates. *8vo. pp. ix+401. 346 figs. T. of c. bibliogr. glossary. index. Philadelphia.*

[**KINGSLEY**, J. S. (*contd.*)]

1926. Guides for vertebrate dissection. The dogfish (Acanthias), an elasmobranch. Revised ed. *8vo. pp. 6+36.* *New York.*

KINGSWAY SERIES. Nature study and the blackboard. *See* SHOOSMITH, F. H.

KINLOCH, ALEXANDER ANGUS AIRLIE [1838–1919].

1885. Large game shooting in Thibet, the Himalayas, and northern India. *4to. pp. 6+237. 30 pl. map.* *Calcutta.*

This record of useless animal murder is somewhat redeemed by an accurate description of the victims and their habits.

KINNEAR, N. B.

1928. A List of Owls, with description of each. Printed for private distribution. *London.*

KIPLING, JOHN LOCKWOOD [1837–1911].

1892. Beast and man in India; a popular sketch of Indian animals in their relations with the people. *8vo. pp. xii+359. 95 figs. T. of c.* *London.*

KĬPRIYANOV, VALERIAN ALEKSANDROVĬCH [1818–].

1881–3. Studien über die fossilen Reptilien Russlands. *4 pts. 4to. 66 pl.* *St. Petersburg.*

KIRBY, WILLIAM [1759–1850].

1835. Animals, their History, Habits and instincts. *2 vols. 8vo. illust.* (Bridgewater Treatise.) *London.*

KIRBY, WILLIAM FORSELL.

1907. Mammals of the World, etc. *4to. pp. xvi+141. figs. in text. 30 col. pl.* (Wanting.) *London.*

A brief but systematic account.

KIRK, H. B.

1913. The present aspect of problems in heredity. *Melbourne.*

Author's reprint from vol. XIV of the *Proc. Austr. Assocn. Ad. Sc.*

KIRKHAM, STANTON DAVIS [1868–].

1908. In the open; intimate studies and appreciations of nature. *8vo. pp. vii+223. 7 pl. T. of c. index.* *San Francisco.*

KIRKMAN, FREDERICK BERNULF BEEVER [1869–] and **others.**

1911–13. The British bird book; an account of all the birds, nests and eggs found in the British Isles. *4 vols. 4to.* Vol. 1, *pp. xviii+449. 63 pl. (46 col.). 12 figs. map. T. of c.* Vol. 2, *pp. xii+540. front. (col.). 68 pl. (47 col., 1 eggs). 10 figs. T. of c.* Vol. 3, *pp. xii+609. front. (col.). 62 pl. (41 col.). 12 figs. T. of c.* Vol. 4, *pp. xii+692. front. (col.). 86 pl. (61 col., 19 eggs). 16 figs. (5 maps). T. of c. index.* *London.*

This work was issued in 12 parts. The photographs and colored plates are very good.

******** and **HUTCHINSON,** HORACE G.

1924. British sporting birds. *4to. pp. xii+428. 43 pl. (32 col.). 8 figs. T. of c.* *London.*

KIRSCH, O. M. and **NEUMANN,** E. *See* NEUMANN, E. and KIRSCH, O. M.

KITABU'L-HAYWAN.

ca. **1580.** Manuscript in Arabic. *See* ANONYMOUS.

KITTLITZ, FRIEDRICH HEINRICH [1799–1874].

1830. Über die Vögel der Inselgruppe von Boninsima. *8vo. no t.-p. pp. 17. 5 col. pl.* *St. Petersburg.*

A critical, descriptive, local list of birds inhabiting the Bonin group of islands, Chile. From the Godman Library.

1830. Über einige Vögel von Chili. *4to. no t.-p. pp. 28. 17 col. pl.* From Académie imp. des sciences de St. Petersbourg. Mémoires des savans étrang. Bound with two others. *St. Petersburg.*

One of the important and early systematic descriptions of Chilian birds by a well-known authority. From the Godman Library.

1831. Über einige noch unbeschriebene Vögel von der Insel Luzon, den Carolinen und den Marianen. *no t.-p. pp. 10. 16 pl. (14 col.).* *St. Petersburg.*

A systematic description, with colored portraits, of ten species of birds new to science, from Luzon, Caroline, and Mariana Islands. From the Godman Library.

1832–3. Kupfertafeln zur Naturgeschichte der Vögel. *3 Hefte. 8vo. pp. 28. 36 col. pl.* *Frankfurt am Main.*

KITTO, JOHN [1804–54].

1841. Palestine: the physical geography and natural history of the Holy Land. *4to. pp. 6+438. illust.* *London.*

KIYOSHI, SENRIODO TAKIZAWA.

1879. Sketches of Birds and Flowers.

KJAERBØLLING, NIELS [1806–71].

1851–6. Danmarks Fugle. *2 vols. 1 atlas and supplements. 8vo and folio. pp. 24+422. 96 col. pl.* *Kjøbenhavn.*

There ought to be 104 colored plates in this early edition of an important work on the birds of Denmark. The *editio princeps* appeared 1847–52, since when there have been several editions, all more or less differing in number and variety of plates. Most of them are irregularly numbered while some of the atlases are largely made up of previously issued plates.

1854–8. Ornithologia Danica. Danmarks Fugle. 252 Afbildninger af de dragtskiftende gamle Hanner, sampt de fra Hannerne væsentligt afvigende Hunner og unge Fugle. *folio. col. pl.,* the last two headed *Supplementtavle. Kjøbenhavn.*

A collection of colored plates, issued supplementary to the author's earlier *Danmarks Fugle.*

[**1856**]. De i det övrige Scandinavien: Sverig, Norge, Paa Island og Færöerne forekommende Fuglearter, der ei ere bemærkede i Danmark. 45 colorerede Afbildninger. *folio. with '35 suppl. and 53 tab.', all col.* *Kjøbenhavn.*

There is the sub-title at this point and bound in as an integral part of the volume is the following title-page, evidently intended to cover one of the preceding and the following series of illustrations: *Ornithologia danica. Danmarks Fugle,* I. 304 Afbildninger af de gamle Hanner, med særskilt text af N. Kjærbölling. Kjøbenhavn. Forfatterens Forlag. 1858. Then follow 2 suppl. with 8 col. pl. The text is entirely wanting. The present copy is from the celebrated library founded by Burgomaster J. W. Six (book-plate) whose portrait was painted by Rembrandt.

1872. Skandinaviens fugle, med særligt hensyn til Danmark og de nordlige bilande. *folio. Kjøbenhavn.*

The above describes the atlas only of the present 1872 edition. It has in all 85 colored plates irregularly placed, e.g. the two supplements and extra plates are not in numerical order. A very important contribution to the literature and depiction of Scandinavian avifauna.

1875–9. Skandinaviens Fugle . . . med Danmark og de Nordlige Bilande. *2 vols. 8vo.* Text vol. in 2nd ed. Atlas, *folio*, of 106 hand-col. pl. *Kjøbenhavn.*

A rare issue, not described in the *Ayer-Zimmer Catalogue.*

1879. To nye Tavler til Dr. Kjaerbölling's Skandinaviens Fugle. *Kjøbenhavn.*

This small supplement has only two plates.

KJELLER, A. 1822–3. *See* THUNBERG, C. P.

KJELLMAN, ADOLF FREDRIK.

1875. Iakttagelser vid studiet af foglarnes digestionsorganer. *8vo.* (Upsala University thesis.)

KLAGENFURT NATURHISTORISCHES LANDES-MUSEUM. RUDOLFINIUM.

1852–*date.* Jahrbuch.

1864–1930. Jahresbericht.

See also CARINTHIA.

KLEIN, JACOB THEODOR [1685–1759].

1731. Descriptiones Tubulorum marinorum. *4to. pp. 14+30. 10 pl.* *Gedani.*

1740–9. J. T. Klein Historiae Piscium naturalis promovendae, etc. *5 pts. (3 vols.). 4to. illust.* *Gedani.*

A valuable contribution to the early history of ichthyology.

1743. Summa dubiorum circa classes quadrupedum et amphibiorum in . . . Caroli Linnaei Systemate naturae. *4to. pp. 4+50. pl. Lipsiae.*

1750. Historiae avium prodromus cum praefatione de ordine animalium in genere. *8vo. pp. 16+238. 7 pl. (4 fold.). index.* *Lubeck.*

This (first edition) is one of the important and fundamental treatises on ornithology—a work of reference for research scholars. It has been translated into German and utilized in large part by many writers. The copy in hand is from Prof. Reichenow's library and bears his autograph.

1754. Doutes ou Observations sur le revue des Animaux. *28 pl.* *Paris.*

1754. Ordre naturel des oursins de mer et fossiles, avec des observations sur les piquans des oursins de mer, et quelques remarques sur les Bélemnites. *12mo. pp. [2]+234. pl.* *Paris.*

A French translation from the original Latin treatise on the *Echinus*, giving, also, the latter text.

1759. Stemmata avium quadraginta tabulis ornata; accedunt nomenclatores. *4to. pp. [16]+48. 40 fold. pl.* *Lipsiae.*

A classified study of the heads, tongues, and feet of birds. The preface is written in parallel columns of Latin and German, the remainder of the text in the latter language only. In the present copy pencilled, explanatory notes accompany each folding plate. This treatise takes rank among the fundamentals of avian literature.

1760. Vorbereitung zu ein. vollständ. Vögelhistorie. *8 pl.* *Leipzig and Lubeck.*

This introduction to a history of bird life in general is a translation by D. H. Behn from the original Latin edition.

1760. Verbesserte und vollständigere Historie der Vögel; hrsg. [with a pref.] von Gottfried Reyger. *4to. pp. [24]+234+[26]* *Danzig.*

An amended translation into German of Klein's *Prodromus*, 1750. The first edition appeared about the same time under the title *Vorbereitung zu einer vollständigen Vögelhistorie.* The copy in hand, from the Reichenow collection, has no plates.

1766. Ova avium plurimarum ad naturalem magnitudinem delineata et genuinis coloribus picta. *4to. pp. 36. 21 col. pl.* *Leipzig.*

A catalogue in both German and Latin of 145 birds' eggs from various parts of the earth. A previous owner of the copy in hand has supplied the English names for the eggs depicted on the rather poor colored plates.

KLEINSCHMIDT, OTTO.

1913. Die Singvögel der Heimat. *8vo. pp. 10+107. 86 col. pl.* *Leipzig.*

A popular description of German song-birds illustrated with unusually good colored prints.

KLESSNER, W.

1921–3. Das grossgeflügel. *2 vols.* *Berlin.*

KLETKE, H.

1854–6. Alex. von Humboldts Reisen in America und Asien. *4 vols. in 2.* *Berlin.*

KLOEPPER, F.

1870. Vortrag (in Knittelversen) über Ornithologie. 2nd ed. *8vo. pp. 24.* *Witten.*

Inserted in this volume of verse (on bird life) is a letter from the author further explaining his views about the poetry of ornithology.

KLOSS, C. BODEN.

1903. In the Andamans and Nicobars; the narrative of a cruise in the schooner 'Terrapin', with notices of the islands, their fauna, etc. *8vo. pp. 16+373. 65 pl. 3 maps. 29 figs.* *London.*

A cruise for the purpose of obtaining natural history objects. Special attention was paid to the trapping of small mammals. Sixteen new species were obtained, thus raising the known mammalian fauna of the islands from 24 to 40 species, while the collections also included 10 hitherto undescribed species of birds.

1930. *See* SMITH, MALCOLM.

KLOSS, FRIEDRICH.

1896. Die Prachtfinken. *8vo. pp. 4+172. 20 text-figs. index.* *Leipzig.*

A semi-popular and well-written monograph on the natural history, care, and culture of (especially) domesticated Finches. The present copy is from the Cabanis-Reichenow collection.

1897. Die Amazonenpapageien. *8vo. pp. 4+46. 8 text-figs. index.* *Leipzig.*

A well-written, semi-popular monograph on Amazon Parrots, their care and culture. From the Cabanis-Reichenow collection.

1901. Der Graupapagei. *8vo. pp. 63. illust.* (In Cabanis, J. L., *Opuscula Ornithologica*, vol. 6.) *Leipzig.*

Second edition of a systematic but popular work on several varieties of the African Gray Parrot, with advice as to their care and culture.

KNAPP, JOHN LEONARD [1767–1845].

1829. The journal of a naturalist. 2nd ed. *8vo. pp. xvi+423. vignette. 7 pl. (1 col.). 5 figs. T. of c. index.* *London.*

Written on the lines of Gilbert White's *Natural History of Selborne*, the district dealt with lying between Bristol and Gloucester. The first edition was also published in 1829—both anonymously—but with a different title-page. A third edition was issued in 1830, and a fourth in 1838.

1830. The journal of a naturalist. 3rd ed. *8vo. pp. xvi+440. 7 pl. (1 col.). 7 figs. T. of c. index.* *London.*

1838. The journal of a naturalist. 4th ed. *8vo. pp. xvi+440. 7 pl. (1 col.). 7 figs. T. of c. index.* *London.*

Differing in no way from the third edition of 1830. This fourth edition is not mentioned in Mullens' bibliography of British ornithology. An American edition was also published at Buffalo in 1853 under the title *Country rambles in England; or Journal of a Naturalist*, by Miss S. Fenimore Cooper.

KNATCHBULL-HUGESSEN, W. W. *See* BRABOURNE and CHUBB, C. (1915)–17; and GRÖNVOLD, H.

KNAUER, FRIEDRICH KARL [1850–].

1914. Vogelschutz und Federnindustrie; eine Streitfrage der Zeit. *8vo. pp. 159. 59 figs. T. of c. index.* *Wien.*

Discussion, statistics, and methods of regulating the feather-industry or traffic in birds of plumage.

KNIGHT, CHARLES [1791–1873].

1831. Architecture of birds. 12mo. pp. 12 + 392. *illust.* *London.*

n.d. Pictorial museum of animated nature. *2 vols. in 1. folio. illust.* *London.*

KNIGHT, CHARLES ROBERT [1874–] and **HARDCASTLE,** ELLA.

[*c.* **1909**]. Birds of the world for young people. *8vo. pp. xliii+260. 43 pl. (4 col.). 11 figs. T. of c. index.* *New York.*

KNIGHT, CHARLES WILLIAM ROBERT.

1921. Wild life in the tree tops. *4to. pp. 12+144. 32 pl. T. of c. index.* *London.*

A second impression of the work was made in 1922.

1925. Aristocrats of the air . . . and a preface by Viscount Grey of Fallodon. *4to. pp. xii+165. col. front. pl.* *London.*

Very interesting personal observations and photography of the Buzzard, Hobby, and other birds of prey.

n.d. The book of the golden eagle. *4to. pp. xii+296. front. (col.). 31 pl. 9 figs. T. of c.* *London.*

A full account of the home-life of the bird in Scotland, illustrated with fine photographs of the young and parent birds at the nest. A chapter is devoted also to the taming of an eagle by the author for hawking purposes.

KNIGHT, FRANCIS ARNOLD.

[**1891**]. The rambles of a dominie. *4to. pp. x+193. front. 2 pl. 13 figs. T. of c.* *London.*

The present copy is one of a large paper edition with proof illustrations, limited to 100 copies signed by the author.

KNIGHT, ORA WILLIS.

1908. The birds of Maine; with key to and description of the various species known to occur or to have occurred in the state. *8vo. pp. xvii+693. map. 26 pl. (2 diagr.). bibliogr. index.* *Bangor, Me.*

One of the best books of its kind, giving more real information than one finds in works of a similar nature.

KNIGHT, THOMAS F.

1866. Descriptive catalogue of the fishes of Nova Scotia. Pub. by direction of the Provincial government, Halifax.

1867. Shore and deep sea fisheries of Nova Scotia. Pub. by direction of the Provincial government, Halifax.

KNIP, *Mme* PAULINE (born COURCELLES).

[**1838–43**?]. Les pigeons par Madame Knip, le text par C. J. Temminck. 2nd ed. *2 vols. folio.* Vol. I, *pp. 128+30. 87 pl. (col.). T. of c.* Vol. II, *pp. (6)+114. 60 pl. (col.). T. of c.* *Paris.*

The first edition of vol. I was published in [1808]–11. Volume I of the above copy is of the second edition with alterations, and issued contemporaneously with vol. II. This second volume (which was under-printed) is said to be probably the rarest item in the whole range of ornithological literature; it contains 60 plates. C. J. Temminck wrote the text of vol. I; that of vol. II—which is new—being by Prévost. An illustrated supplement by Chas. Lucien Bonaparte appeared in 1857 under the title *Iconographie des Pigeons.*

KNIPE, HENRY R.

1912. Evolution in the Past. *8vo. pp. xiii+242. 56 pl. text illust.* *London.*

Much of this valuable work is devoted to the various vertebrate classes.

KNOBEL, E. MAUD.

1926. Amazon parrots, a short descriptive list with directions for their care in captivity. *8vo. pp. 16. front. (col.).* [*Hertford.*]

This author has also written extensively on a research she has been following for many years, viz. methods to determine the sex of parrots—many of whose species present external appearances alike in the male and female.

KNORTZ, KARL [1841–?1914].

[**1913**]. Die Vögel in Geschichte, Sage, Brauch und Literatur. *8vo. pp. (4)+296. 18 figs. T. of c.* *München.*

KNOTTNERUS-MEYER, TH.

1927. Birds and beasts of the Roman Zoo. Tr. from German by Bernard Miall. *8vo. pp. 6+378. pl.* *London.*

KNOWLEDGE. 1881–1917. *London.*

KNOWLEDGE AND SCIENTIFIC NEWS. *See* KNOWLEDGE. *London.*

KNOWLTON, FRANK HALL [1860–1926] and **RIDGWAY,** ROBERT.

1909. Birds of the world; a popular account, with a chapter on the anatomy of birds, by Frederic A. Lucas; the whole ed. by Robert Ridgway. *4to. pp. 13+873. 16 col. pl. text-figs.* *New York.*

A comprehensive and excellent work of reference for the student. It is well illustrated and has up-to-date chapters on avian anatomy, classification, and distribution.

KNOX, ARTHUR EDWARD [1808–86].

1849. Ornithological rambles in Sussex. *8vo. pp. vi+250. 3 pl.* *London.*

Other editions were issued; the second in 1850 and the third in 1855, the last being the best.

1850. Ornithological rambles in Sussex. 2nd ed. *8vo. pp. x+254. 3 pl. T. of c.* *London.*

1850. Game birds and wild fowl; their friends and their foes. *8vo. pp. x+264. 4 pl.* *London.*

1855. Ornithological rambles in Sussex. 3rd ed. *8vo. pp. xii+260. front. 3 pl. T. of c.* *London.*

1872. Autumns on the Spey. *8vo. pp. 8+(171). 4 pl. (col.). 3 figs. T. of c.* *London.*

KOBELT, WILHELM [1840–?1911].

1885. Reiseerinnerungen aus Algerien und Tunis. *8vo. pp. 8+480. 13 pl. 11 text-figs.* *Frankfurt a/M.*

KOCH, GOTTLIEB VON [1849–?1921].

1871. Synopsis der vögel Deutschlands. *12mo. pp. vii+137. 206 figs. 8 pl.* *Heidelberg.*

A concise and briefly descriptive catalogue of the German avifauna. The figures are mostly illustrations of anatomical peculiarities in species. The little book is scarce, the copy in hand being a present from the author.

KOCH, OSCAR.

1911. Übersicht über die Vögel Estlands. (Verein für Naturkunde Estlands.) *8vo. pp. 4+89.* *Reval.*

A short descriptive and systematic account of 255 species of North German birds.

KOCHTS, ALEXANDER ERICH. *See* LORENZ, THEODOR, 1910.

KÓCSAG.
1928–30. Vols. I–IV. A quarterly periodical for the study and protection of birds. Official organ of the Association of the Hungarian ornithologists, and the Society for the bird-protection in East Hungary. *Budapest.*

KOEHLER, FR. EUGEN.
[**1896**]. Schädliche Vogelarten. *8vo. pp. (4)+44. 24 pl. (col.). index.* *Gera-Untermhaus.*
The purpose of the book is not to advocate the extermination of the birds classed as 'injurious' but to intensify, by way of contrast, the protection of the others, and to convey useful information regarding the habits of birds.

1898. Nützliche Vogelarten und ihre Eier. *8vo. col. pl.* *Gera.*

n.d. Nützliche Vogelarten und ihre Eier. *8vo. pp. (2)+61. 25 pl. (col.). index.* *Halle a/s.*
Another edition of what is known as 'Koehler's Useful Birds' [and their eggs], published with Government approval, and colored plates.

KOEHLER, JEAN BAPTISTE FRANÇOIS RENÉ [1860–].
1885. Contribution à l'étude de la faune littorale des îles anglo-normandes (Jersey, Guernsey, Herm et Sark). *8vo. pp. 62. pl.*

KOELSCH, ADOLF [1879–].
1919. Die Verwandlungen des Lebens. *8vo. pp. 94. illust.* *Zürich.*

KOENIG, ALEXANDER FERDINAND [1858–].
[**1895–6**]. Reisen und Forschungen in Algerien. *2 vols. 8vo. 16 col. pl. 24 photopl.* Vol. I. 1895. *pp. 168.* Vol. II. 1896. Zweiter Thiel. *pp. 426.* *Bernberg.*
This author also writes as O. Le Roi. A systematic catalogue, with descriptive matter, of over 400 species found in Tunis and Algiers. The second part of the monograph has an appended list of all the faunal species. The present copy is from Prof. Reichenow's library.

1911. Avifauna spitzbergensis. Forschungsreisen nach der Bären-Insel und dem Spitzbergen-Archipel, faunistischen und floristischen ergebnissen. *4to. pp. 10+294. 60 pl. (34 col.). 74 text-figs. map.* *Bonn.*
A report on three ornithological expeditions to Spitzbergen and on the birds of that archipelago. The copy in hand is one of an *edition de luxe* with a sumptuous leather cover heavily embossed with a reproduction in gold of the frontispiece.

KÖNIGSBERGER ARCHIV FÜR NATURWISSENSCHAFTEN UND MATHEMATIK. 1811–12. *Königsberg.*

KOENIGSBERGER NATURWISSENSCHAFTLICHE UNTERHALTUNGEN. 1844–52. *Königsberg.*

KOENIG-WARTHAUSEN, RICHARD.
1889. Die Kreuzschnäbel und ihre Fortpflanzung. *8vo. pp. 52.* (*Jahresheft. des Vereins f. v. Naturk. in Württemberg,* 1889.) *Stuttgart.*
Author's excerpt, on the *Curvirostrae* in general and European species in particular; the subject scientifically treated. The present volume was a presentation copy to Prof. Blasius.

KOEPERT, OTTO [1860–].
1892. Der Star (Sturnus vulgaris L.) in volkwirtschaftlicher und biologischer Beziehung. *8vo. pp. 115.* *Altenburg, S.-A.*
A contribution to the study of the common starling, and especially of its economic status.

1893. Bilder aus dem Tier- und Pflanzenreiche. *See* BRESLICH, W. and KOEPERT, O.

KOEPPEN, THEODOR.
[**1885**]. Anleitung zur Züchtung und Ansiedelung von Nachtigallen. *12mo. pp. 6+112. T. of c.* *Berlin.*

KOHAUT, REZSÖ.
1894. Magyarországi madarak meghatározó könyve. *12mo. pp. 8+210. index.* *Budapest.*
A description (in Magyar) of Hungarian birds, giving generic headings, to include such species as occur locally. From the Reichenow Library.

KOHLER, M.
1895. Unsere Vögel. *See* LEHMANN, O.

KOLDEWEY, KARL [1837–?1909].
1873–4. Die Zweite deutsche Nordpolarfahrt in 1869 und 1870. *2 vols.* *Leipzig.*

1874. The [Second] German arctic expedition of 1869–70. *8vo. pp. 8+590. 35 pl. (4 col.). 40 figs. 2 maps.* *London.*
An interesting description of this expedition, edited by H. W. Bates, translated by L. Mercier. (1) Joint passage of the two ships, and voyage and wreck of the Hansa; (2) Voyage of the Germania. There are some 24 references to birds scattered throughout the volume.

KOLLAR, VINCENZ [1797–1860] and **others.**
1848–57. Bildliche Naturgeschichte aller drei Reiche, etc. *4 pts. (in 3 vols.). 8vo. col. illust.* (Wanting.) *Pest und Wien.*
Volumes I and II of this well-illustrated treatise are devoted to zoology. The mammals and birds are described by Kollar and J. Heckel, pp. 364, 57 col. pl., 1848–53; the amphibia and fishes by Kollar, L. Fitzinger, and J. Heckel.

KOLLIBAY, PAUL.
1906. (Die) Vögel der Preussischen Provinz Schlesien. *8vo. pp. 370. illust.* *Breslau.*
A comprehensive study of 317 avian species (migrants starred) observed in Prussian Silesia. A bibliography covering A.D. 1800–1905 fills 13 pages. Altogether an up-to-date contribution to ornithology.

KOLLMAN, MAX. *See* BABAULT, GUY, 1916–23.

KOLTHOFF, GUSTAF ISAK [1845–].
1898–1920. Nordens fåglar af G. Kolthoff och L. A. Jägerskiöld; ny utvidgad och omarbetad upplaga af C. J. Sundevalls 'Svenska foglarna'. *folio. pp. 16+343. 69 col. pl. See also* JÄGERSKIÖLD, L. A. *Stockholm.*

1903. Bidrag til kännedom om norra Polartraktern as däggdjur och fåglar. *folio. pp. 104. illust.* *Stockholm.*

1911–26. Nordens fåglar af L. A. Jägerskiöld och Gustaf Kolthoff, under medverkan av Rud. Söderberg, med tavlor av Olof Gylling. *2 vols. illust. with pl. and text-figs.* *Stockholm.*
A complete systematic and well-illustrated account of Scandinavian aves; really an amended, enlarged, and much improved printing of the 1898 edition.

1920. *See* GYLLING, OLOF.

KOMMISSION ZUR WISSENSCHAFTLICHEN UNTERSUCHUNG DER DEUTSCHEN MEERE IN KIEL. 1871–91. *Berlin.*
1894–*date.* New Series.

KONINGSBERGER, JACOB CHRISTIAAN [1867–].
1901–09. De Vogels van Java en hunne Oeconombeteeknis. *112 pl.* *Batavia.*

[**KONINGSBERGER,** J. C. (*contd.*)]

1911. Java, zoölogisch en biologisch. *8vo. pp. 492.* Nos. 1–20. *Buitenzorg.*

This edition is not complete, ending abruptly at p. 492.

1915. Java, zoölogisch en biologisch. *8vo. pp. [6] +663.* *Buitenzorg.*

This is the 1915 edition of the preceding work, bringing it to completion with the addition of an excellent index where all the references in the text to the birds of Java will be found. There are no illustrations, but the different assemblages of animals in the various ecological horizons are described graphically.

KONINK. ZOOL. GENOOTSCHAP 'NATURA ARTIS MAGISTRA'. *Amsterdam.*
1848–*date*. *See* BIJDRAGEN TOT DE DIERKUNDE.

KONO BAIREI.
1881. One Hundred Birds (Hyaku-cho Gwafu), Colored Japanese Sketches in three volumes, placed in European order.

1884. Two supplementary volumes (Nos. 2 and 3), arranged in (European) order.

KOREA, SEOUL, BRANCH OF ROYAL ASIATIC SOCIETY OF GREAT BRITAIN AND IRELAND. *See* ROYAL ASIATIC SOCIETY . . . KOREA, SEOUL, BRANCH.

KOREN, JOHAN [1809–85].
1846–77. Fauna littoralis Norvegiae. *3 vols. folio.* *Christiana.*

Observations, extending over 30 years, of the coastal fauna of Norway. *See also* SARS, M.

**** and **DANIELSSEN,** D. C.
1883. Nye Alcyonider . . . tilhørende Norges Fauna. *4to. pp. xvi+38. 13 col. pl.* *Bergen.*

KÖRNER, M.
1839–46. Skandinaviska foglar. Tecknade efter naturen. *4to. pp. 22+2. 62 col. pl.* *Lund.*

This scarce and important treatise on the avifauna of Scandinavia was published by the author himself, illustrated by numerous hand-colored plates.

1859. Skandinaviska Foglar; tecknade efter Naturen, lithografierde, tryckte och utgifne af M. Körner. 1sta. Häftet. *4to. 60 pl. (col., 298 figs.).* *Lund.*

Sixty colored plates representing 262 species of Scandinavian birds in summer and winter plumage. The complete work calls for 62 plates but pls. nos. 51 and 59 are missing in the present copy. The first edition was published in 1839–46.

KOSMOS. Zeit. für angewandte Naturwiss. *Leipzig, Vienna.*
1857–60. Vols. 1–4 (all pub.).

KOSMOS. Zeitschrift für einheitliche Weltanschauung auf Grund der Entwicklungslehre. 1877–86. *Leipzig and Stuttgart.*

Three series of this important journal, in all 19 vols., eventually merged with HUMBOLDT (q.v.).

KOSMOS, handweiser für naturfreunde; hrsg. vom Kosmos, gesellschaft der naturfreunde.
1904–30. Bd. 1–28. *Stuttgart.*

KOSMOS - JAHRBÜCHER; Jahrbuch der Vogelkunde. 1907–11. *Stuttgart.*

KOTTENKAMP, FRANZ.
1847. *See* RENNIE, JAMES.

1874. Vorschule der Thierkunde. *8vo. Stuttgart.*

KOVALEVSKĬI, VLADĪMIR O. [1842–83].
1873. Versuch einer natürlichen Classification der Fossilen Hufthiere. (In German and Russian.)
A systematic treatise of considerable value.

KRAKOW. Bulletin international; Academija umiejetności, Krakow.
1889–1900. Comptes Rendus des Séances, and the continuation, Serie B, **1901–*date*.**

KRANZ, CAJETAN ANTON [1839?–86]. **1870.** *See* WEBER, J. C.

KRARUP-HANSEN, CHRISTIAN JOHAN LODBERG [1817–95].
1869. Essai d'une théorie du vol des oiseaux, des chauves-souris et des insectes; traité populaire accompagné de xylographies. *8vo. pp. 44. illust.* *Copenhague.*

An important contribution to aerial flight.

KRAUSE, GEORG A. J. [1858–].
1901. Die Columella der Vögel (Columella auris avium) ihr Bau und dessen Einfluss auf die Feinhörigkeit. *4to. pp. 8+26. 4 pl. text-figs. Berlin.*

1905–13. Oologia universalia palaearctica. *3 vols. 4to.* Vol. I, *58 ff. (text, etc.). 56 pl. (col.). index.* Vol. II, *57 ff. (text, etc.). 50 pl. (col.).* Vol. III, *63 ff. (text, etc.). 51 pl. (col.).* *Stuttgart.*

A beautiful series of colored plates of the eggs of Palaearctic birds, each plate representing from three to five or more clutches of eggs showing the range in variation. The text is in German and English. The work, interrupted in 1913, has never been resumed. It was issued in 78 parts, each with two plates, except the first, which had four. There should be 158 plates but there are only 157. The covers of the 78 parts are bound in at the end of the volumes under notice.

KREFFT, JOHANN LUDWIG GERHARD [1830–81].
1865. Two Papers on the Vertebrata of the Lower Murray and Darling; and on the Snakes of Sydney. *8vo. pp. 60.* *Sydney.*

1868. Notes on the fauna of Tasmania. *8vo. pp. 14. 2 figs.* *Sydney.*

Printed for private circulation only. 162 species of birds are described, about 20 of which are peculiar to the island.

1869. The Snakes of Australia; an illustrated and descriptive catalogue of all the known species. *4to. pp. xxv+100. illust. 12 col. pl.* *Sydney.*

This important work was preceded by another, dated 1865, in which the author confines his descriptions to the ophidia of Sydney and neighborhood.

1871. The mammals of Australia, illustrated by Harriet Smith and Helena Forde, with a short account of all the species hitherto described. *folio. 16 pl. with letterpress.* *Sydney.*

KRIDER, JOHN.
1879. Forty years notes of a field ornithologist. Giving a description of birds [collected] by him. *8vo. pp. xi+84. T. of c.* *Philadelphia.*

KRIEGER, OTTO VON.
1878. Die hohe und niedere Jagd. *8vo. pp. 179.* *Trier.*

An historical and sociological account of the chase—including falconry and other bird hunting—in Thüringia during the sixteenth and seventeenth centuries.

KROATISCHE NATURWISSENSCHAFTLICHE GESELLSCHAFT. *See* HRVATSKO PRIRODOSLOVNO DRUŠTVO U ZAGREBU.

KROHN, H.

1903. Der Fischreiher und seine Verbreitung in Deutschland. *8vo. pp. 103. col. map. Leipzig.*

A monograph on the heron (*Ardea cinerea*) and its distribution in Germany. The copy in hand is a present from the writer.

[1924]. Die Vogelwelt Schleswig-Holsteins und ihre Erforschung im Verlauf von fünf Jahrhunderten von 1483 bis zur Gegenwart. *8vo. pp. 494. 1 pl. (fold. maps). bibliogr. Hamburg.*

KRUIMEL, JAN HERMAN.

1916. Onderzoekingen over de veeren bij Hoenderachtige Vogels. (Amsterdam University theses.) *folio. pp. 4+93. 4 pl. 4 figs. 2 indexes. Leiden.*

On the feathers of gallinaceous birds.

KRYMSKOE OBSHCHESTVO ESTESTVOISPYTATELEĬ I LÍUBITELEĬ PRIRODY. *Sevastopol.*

1911–13? Zapiski.

French title: Société des Naturalistes et des Amis de la Nature en Crimée.

KUEKENTHAL, WILLY [1861–].

1925. Handbuch der Zoologie. *Berlin.*

A very important treatise, a subscription work intended to meet the wants of advanced students.

KÜENZI, WALTER [1893–].

1918. Versuch einer systematischen Morphologie des Gehirns der Vögel. *4to. pp. 17+111. 7 pl. T. of c. Geneva.*

Indices of the five divisions of the brain in relation to the entire surface of the brain are established and form the basis of comparison between lower and higher types. The highest values are found in the Psittacidae. (Bern University thesis.)

KUHL, HEINRICH [1797–1821].

1820. Beiträge zur zoologie und vergleichenden anatomie. *2 pts. 4to. pp. 151+212. 11 pl. Frankfurt-a/M.*

1820. Buffoni et Daubentoni figurarum avium coloratarum nomina systematica; ed., praef. et indicibus auxit Theodorus van Swinderen. *4to. pp. [4]+26. Groningae.*

A rare and valuable collection of papers on various subjects by this famous comparative anatomist, the first tabulating 1,008 colored plates published in the works of Buffon and Daubenton, furnishing systematic names for the species when these were lacking. Then follows an *Index Systematicus* of 147 genera, after the classification of Illiger, as published in his *Prodromus Systematis Avium*, Berolini, 1811; after which an *Avium Ordines, Familiae et Genera in Systemate Cl. Illigeri* and, finally, an alphabetic index of genera according to Illiger. From Prof. Cabanis' library.

KUHLMANN, F.

[n.d.] Some preliminary observations on the development of instincts and habits in young birds. (Wanting.)

KUHNERT, WILHELM [1865–].

1907–11. Farbige Tierbilder. *2 Folgen. folio. col. pl. Berlin.*

n.d. Meine Tiere; die Radierungen Wilhelm Kunherts. *4to. pp. xxvi+31. Berlin.*

Reproductions of etchings of animals, dating from 1914 to 1924, by Kuhnert, who travelled in Africa for the purpose of sketching wild game from life. He is especially noted for his delineations of lions. Of other noteworthy sketches may be mentioned the group of Ceylon Buffaloes (pl. 32) and the African Water-buck (pl. 95). The descriptions are by Hermann Hirzel.

KUMLIEN, LUDWIG [1853–1902].

1879. Contributions to the natural history of Arctic America, made in connection with the Howgate polar expedition, 1877–78. *8vo. pp. 179. T. of c. Washington.*

An author's separate (Bulletin No. 15 of the United States National Museum).

******** and **HOLLISTER,** NED.

1903. The birds of Wisconsin. *8vo. pp. iv+143. front. 7 pl. 2 indexes. Milwaukee.*

A systematic and valuable annotated list of 357 species.

KUO P'O [A.D. 276–324], *Commentator.*

1801. A dictionary of ancient terms, with terms and illustrations for animals, birds, insects, fishes, etc., reprint from a Sung edition (960–1280). *40·8×26·8 cm.* [G.]

KUNST- UND HANDWERKSVEREIN; Naturforschende Gesellschaft. *See* OSTERLÄNDISCHE BLÄTTER FÜR LANDES- NATUR- UND GEWERBEKUNDE.

KUPFFER, CARL WILHELM VON [1829–1902] and **BENECKE,** B. A.

1879. Photogramme zur Ontogenie der Vögel. Serie I (all pub.). *folio. pp. 48. 15 pl. Halle.*

KURODA, NAGAMICHI.

1913. Geese and swans of the world. *4to. pp. [8]+118. 9 pl. (4 col.).* (The Ornithological Society of Japan.) *Tokyo.*

Title-page and systemic nomenclature in English; text in Japanese.

1917. General survey of Corean and Manchurian birds. *4to. pp. 95+182. Tokyo.*

A few cuts in the text, with the zoological names of species in English and Japanese. A systematic study, published in Japanese by the Ornithological Society of Japan, of the avifauna of Korea and Manchuria. The copy in hand is a presentation to the library by the author who has kindly supplied a MS. translation of the title in English.

1925. A contribution to the knowledge of the avifauna of the Riu Kiu islands and the vicinity. *4to. pp. vi+293. 8 pl. (col.). 1 map (fold.). T. of c. bibliogr. index. Tokyo.*

An important work on the birds of the Riu Kiu or Loo-choo islands, a chain of about 40 islands between Kiushiu, the southernmost of the Japanese group, and Formosa. Kuroda obtained examples of 231 Riu Kiu birds out of a total of 281 forms reported from these islands. Fine colored drawings from the paintings of Juzo Kobayashi accompany the text.

1926. A Monograph of the Pheasants of Japan including Korea and Formosa. *pp. 40. 12 col. and 3 plain pl. T. of c.* Published by the Author. *Tokyo.*

A classic treatise, extremely well prepared, on the above subject.

KUSER, JOHN DRYDEN.

1912. The birds of Somerset hills [New Jersey]. *12mo. pp. (4)+160. 22 pl. (col.). 1 map. T. of c. index. [Rahway, N.J.]*

The list includes 132 species and subspecies. The present copy is a presentation from the author, with his autograph.

1917. The way to study birds. *New York and London.*

KÜSTER, HEINRICH CARL [1807–76] and **HAHN,** C. W.

1818–50. Voegel aus Asien, Afrika, Amerika und Neuholland, &c. *See* HAHN, C. W. and KÜSTER, H. C.

KUTCHIN, VICTOR.
[**1922**]. What birds have done with me. *8vo. pp. 274. front. T. of c.* *Boston.*

L., H. M.
n.d. Rough notes on natural history in Norfolk and the eastern counties. *12mo. pp. (4)+141. 17 figs. index.* *London.*

LABAT, JEAN BAPTISTE [1663–1738].
1722. Nouveau Voyage aux isles de l'Amérique, etc. *6 vols. 12mo. illust.* *Paris.*
The Compiler is acquainted with this work mainly because of many references to the fauna of the British West Indies. It is among the fundamentals for a study of those islands.

LABILLARDIÈRE, JACQUES JULIEN HOUTON DE [1755–1834].
1800. An account of a voyage in search of La Pérouse, undertaken by order of the Constituent Assembly of France and performed in the years 1791–93, in the Recherche and Espérance. *3 vols. 2 vols. 8vo. text. 1 vol. folio. atlas.* Pub. by J. Debrett. Tr. from the French. Vol. I, *pp. lxii+464. T. of c. index.* Vol. II, *pp. vii+423+43. T. of c.* Vol. III, *pp. 6. 44 pl. (1 chart fold.).* *London.*
A voyage having two ends in view, the search for M. de la Pérouse and his companions, and the study of the natural history, &c., of the countries visited. References to birds are numerous throughout both volumes, with illustrations of the Black Swan, Calao, Black-spotted Parrakeet, Magpie of New Caledonia, Albatross, various Pigeons, Gulls and Petrels, &c., &c.

1800. Voyage in search of La Pérouse, performed by order of the Constituent assembly, during the years 1791, 1792, 1793, and 1794, and drawn up by M. Labillardière . . . one of the naturalists attached to the expedition. *2 vols. 8vo.* Vol. I, *pp. xxxii+487. 15 pl. (1 chart fold.). T. of c.* Vol. II, *pp. 344+105. front. 29 pl. T. of c. append.* *London.*
This edition (translated from the French and printed for John Stockdale) differs in many respects from that of the same date printed for J. Debrett. The wording of the title-page is different as well as the general arrangement of the text and plates, the latter not being in a separate folio atlas, but reduced in size and bound in amongst the text, the number of plates appearing as 46 owing to two of the plates in the atlas being divided into two.

LA BLANCHÈRE, PIERRE RENÉ HENRI MOULIN DU COUDRAY DE [1821–80].
1875. Les oiseaux utiles et les oiseaux nuisibles aux champs—jardins—forêts, etc. 2nd ed. *16mo. pp. vii+387. 150 figs. index.* *Paris.*

1884. Les oiseaux utiles et les oiseaux nuisibles. 4th ed. *12mo. pp. 8+387. illust.* *Paris.*

1885. La Pêche et les Poissons. Nouv. Dictionnaire des Pêches. *4to. 45 col. pl.* *Paris.*

LA BONITE. Voyage autour du Monde.
1840–52. Zoologie. *2 vols. and atlas. 100 col. pl.* *See* VOYAGES, FRENCH. *Paris.*

LABORATOIRE ZOOLOGIQUE ET STATION BIOLOGIQUE DE SÉBASTOPOL.
1903–5. Travaux. Series 1.

1915–*date*. Travaux. Series 2.

LABOUCHERE, HENRY MATTHEW.
1874. Bird-life, &c. *See* BREHM, A. E.

LACAZE-DUTHIERS, H. DE. **1872.** *See* ARCHIVES DE ZOOLOGIE EXPÉRIMENTALE ET GÉNÉRALE.

LACÉPÈDE, BERNARD GERMAIN ÉTIENNE DE LA VILLE [1756–1825].
1749–1825. *See* BUFFON and others.

1788–9. Histoire naturelle des quadrupèdes ovipares et des serpents. *2 vols. 8vo. illust. pl. See* BUFFON, 1749–1804. *Paris.*
One of the earliest treatises on natural history by this associate of Buffon.

1810. The wonders of animated nature; consisting of descriptions at large and engraved representations of the principal animals and birds in the Royal menageries of London and Paris. Tr. from Lacépède, with considerable additions by the English editor. *8vo. pp. 198. front. (fold.). 14 pl. (fold.). T. of c.* *London.*

1819. *See* BUFFON, G. L.

1825. Histoire naturelle des quadrupèdes ovipares, serpents, poissons et cétacés pour faire suite aux Œuvres de Buffon. Nouvelle éd. *5 vols. 8vo.* *Paris.*

1856. Histoire Naturelle de Lacépède, etc. *2 vols. 8vo. col. illust.* (Wanting.)
This is the first of a series of treatises on vertebrates by this famous naturalist. It is based on Cuvier and Desmarest. The many subsequent volumes and editions by this author follow Buffon (q.v.), and his teachings.

1860–4. Histoire naturelle . . . les cétacés, les quadrupèdes ovipares, les serpents. *2 vols. 8vo.* *Paris.*

LACKOWITZ, WILHELM.
1884. Unsere Vögel. Bilder aus dem Vogelleben Norddeutschlands. *See* RÖPER, PAUL M. and LACKOWITZ, WILHELM.

LA COQUILLE, VOYAGE OF. *See* LESSON, RENÉ PRIMEVÈRE, 1839.

LACROIX, A. and **others.**
1924–5. Inventaire des périodiques scientifiques des bibliothèques de Paris. *4 pt.* *Paris.*
See under ACADÉMIE DES SCIENCES.

LACROIX, ADRIEN.
1873–5. Catalogue raisonné des oiseaux observés dans les Pyrénées Françaises. *8vo. pp. 299. 8 col. pl.* *Toulouse and Paris.*

LADD, NIEL MORROW.
[**1916**]. How to make friends with birds. *32mo. pp. (8)+228. 206 figs. (8 col.). index.* *Garden City, N.Y.*

1926. How to make friends with birds. *Garden City, N.Y.*

LAEFFLER, E.
1905. Dænemarks Natur und Volk. *Copenhagen.*

LAET, JOANNES DE [1593–1649].
1648. G. Marcgravii . . . Historiae Rerum Naturalium Brasiliae, libri octo, etc. *folio.*
This is a compilation of the uses of certain Brazilian products in medicine (in which some South American fauna are described) based on G. Piso's treatise on the same subject.

LA FRESNAYE, FRÉDÉRIC DE [? 1786–1861].
[**1837–8**]. Synopsis Avium ab A. d'Orbigny in ejus per Americam meridionalem itinere, etc. *2 pts. 8vo.*
As indicated, the above title (on the birds of South America) forms two of ninety parts of d'Orbigny's famous *Voyage dans l'Amérique Méridionale* (q.v.).

1845–51. *See* VOYAGES, FRENCH; EN ABYSSINIE, DANS LES PROVINCES DU TIGRÉ, etc.

[**1863**]. Catalogue des Oiseaux de la collection de . . . M. le Bon. de Lafresnaye. *8vo. pp. 258.* Lithographed. *Falaise.*

The collection listed in the above Catalogue of Birds was purchased in 1865 by Dr. Henry Brant and presented to the Boston Society of Natural History, who, a few years later, presented it to the Museum of Comparative Zoology, Harvard University.

1863. Catalogue des ouvrages scientifiques composant la bibliothèque de M. le Bon. de La Fresnaye. *8vo. pp. 11.* *Falaise.*

LAIDLAW, FRANK FORTESCUE. **1902.** *See* GARDINER, J. S.

LAIMBEER, RICHARD HARPER.
1923. Birds I have known. *8vo. pp. xviii+401. front. (col.). 98 pl. (49 col.). T. of c. index.* *New York.*

LAING, HAMILTON MACK [1883–].
1913. Out with the birds. *8vo. pp. (12)+249. front. 23 pl. T. of c.* *New York.*

******** and **TAVERNER,** P. A.
1925. Birds collected and observed during the cruise of the Thiepval in the North Pacific, 1924. Canada. Depart. of Mines. *8vo. pp. (4)+46. front. 2 pl. 1 fig. T. of c. bibliogr.* *Ottawa.*

An annotated list of the birds observed and collected during the cruise, the critical remarks in small type being supplied by P. A. Taverner who is also responsible for the nomenclature and determination of specimens.

LAISHLEY, RICHARD.
1858. A popular history of British birds' eggs. *8vo. pp. xi+313. front. (col.). 19 pl. (col.). index.* *London.*

LAMARCK, JEAN BAPTISTE PIERRE ANTOINE DE [1744–1829].
1802. Recherches sur l'organisation des corps vivans, et particulièrement sur son origine, sur la cause de ses developpemens et des progrès de sa composition, et sur celle qui, tendant continuellement à la détruire dans chaque individu, amène nécessairement sa mort. *8vo. pp. viii+216. index.* *Paris.*

A rare title of great value in the study of evolution. *See also* the author's *Philosophie zoologique.*

1809. Philosophie zoologique, ou exposition des considérations relative à l'histoire naturelle des animaux; à la diversité de leur organisation et des facultés qu'ils en obtiennent; aux causes physiques qui maintiennent en eux la vie et donnent lieu mouvemens qu'ils exécutent; enfin, à celles qui produisent, les unes le sentiment, et les autres l'intelligence de ceux qui en sont doués. *2 vols. 8vo. pp. 475 and xxv+428.* *Paris.*

An association copy of extreme rarity and importance in the study of the illustrious author's contributions to the theory of animal evolution. It bears the following inscription: 'A Monsieur Cuvier de la part de l'auteur.' The copy has the stamp 'G. Cuvier' and 'Muséum d'Histoire Naturelle' on the title-pages, and has at one time been sold as a duplicate. A number of passages from the *Recherches* (q.v.) have been reprinted verbatim in the *Philosophie zoologique.* Neither the *Recherches* nor the *Philosophie* is in the British Museum Library, and there is only one volume of the latter in the Prussian State Library.

1809. Philosophie zoologique. Übersetzt von A. Lang unter dem Titel: 'Zoologische Philosophie von Jean Lamarck, nebst einer biographischen Einleitung von Charles Martins.' *Jena, 1876.*

A German translation of the rare original.

LAMBRECHT, KÁLMÁN.
1921. Fossilium Catalogus. Editus a C. Diener. Pars 12: K. Lambrecht. Aves. *8vo. pp. (4)+104. index.* *Berlin.*

Part 12 of Section 1 of a work planned to embrace all fossils. The present number covers the class Aves. The specific date is from the original wrapper.

LAMOUROUX, *Madame* S.
1828. Iconographie des Reptiles, etc. *8vo.* (Wanting.)

This interesting series of reptilian portraits forms part of Bory de Saint-Vincent's contribution to the *Encyclopédie portative—Résumé d'Erpétologie.*

LAMPE, M. **1901–3.** *See* GERMANY. DEUTSCHE SÜDPOLAR-EXPEDITION.

LAMPERT, KURT [1859–1918].
1910. Das Leben der Binnengewässer. 2nd ed. *4to. pp. 18+856. illust. pl.* *Leipzig.*

LA MURITHIENNE.
1868–*date.* Bulletin de la Soc. Valaisanne, etc. *6 vols. See also* MURITHIENNE.

LA NATURE. PARIS.
1873–1917. *94 vols.*

LANCASHIRE AND CHESHIRE FAUNA COMMITTEE. *Manchester.*
1914/15–*date.* Annual Report and Reports of Recorders.

LANCASHIRE AND CHESHIRE NATURALIST. **1914**–*date. See also* LANCASHIRE NATURALIST and JOURNAL OF NATURAL HISTORY . . . LANCASHIRE, etc. *Darwen.*

LANCASHIRE NATURALIST. *Darwen.*
1907–8. Continued as Journal of Natural History . . . Lancashire, etc.

LANCASHIRE SEA FISHERIES LABORATORY. *See* LIVERPOOL UNIVERSITY.

LANCASHIRE AND WESTERN SEA FISHERIES JOINT COMMITTEE. *Liverpool.*
1906–10. Quarterly Report on Scientific Work.

LAND AND WATER. **1862–1920.** *London.*

LANDBRUG OG NATURVIDENSKAB.
1867–70. *Odense.*

LANDOIS, HERMANN [1835–?1907]. **1878.** *See* ALTUM, B. and LANDOIS, H.

LANDRIN, ALEXANDRE.
1867. Les monstres marins. *Paris.*

LANDSEER, THOMAS [1795–1880] and **BARROW,** J. H.
1832. Characteristic sketches of animals, drawn from the life and engraved by Thos. Landseer; with descriptive and illustrative notices by J. H. Barrow. *folio. pp. x+(68). 32 pl. 32 figs. (tail-pieces).* *London.*

A series of 32 beautiful etchings of animals accompanied by two pages of descriptive letterpress and etched tail-piece to each. *See also* BARROW, J. H.

LANDSHUT. Naturwissenschaftl. Verein. Bayern.
1864–1910. Bericht (all pub.).
1864–1900 as Botanischer Verein in Landshut.

LANE, CYRIL GRANT.
n.d. Creature-life in Australian wilds. *4to. pp. 304. front. 100 figs. T. of c. index.* *London.*
An account of 18 years spent in the Australian bush observing and photographing the unique creatures found there. The birds are described on pages 153–278 illustrated with 38 beautiful photographs.

LANG, ANDREW [1844–1912].
1896. The animal story book. *12mo. pp. 14+400.* *London.*

LANG, ARNOLD [1855–1929].
1891–6. Text-book of Comparative Anatomy. Tr. into English by H. M. Bernard . . . with a preface by E. Haeckel. *2 pts. 8vo. illust.* *London.*
Highly recommended to students.

LANG (*Capt.*).
1904. Overheard, by Skene Dhu [pseud.]. *12mo. pp. [10]+150. T. of c.* *Madras.*
Popular sketches of scenes in the jungle in most of which birds are made to figure.

LANGDON, FRANK WARREN [1851–].
1879. A revised list of [256] Cincinnati birds. *8vo. pp. 27. no title.* *Cincinnati.*
A separately paged reprint from the *Journal of the Cincinnati Society of Natural History*, Jan. 1879.

LANGE, DIETRICH [1863–].
1899. Our native birds. *8vo. pp. ix+162. 10 figs. T. of c. index.* *London.*

LANGGUTH, CHRISTIAN AUGUST.
1803. De mumiis avium in labyrintho apud Sacaram repertis. *8vo. pp. 4+49. pl. Vitebergae.*
An interesting inaugural thesis on mummified birds found in a tomb at Sakkara, Egypt.

LANGILLE, JAMES HIBBERT.
1884. Our birds in their haunts: a popular treatise on the birds of eastern North America. *8vo. pp. (4)+5–624. front. 1 pl. 24 figs. index.* *Boston.*

LANGIUS, J. J. **1760**. *See* LINNAEUS, CARL.

LANGKAVEL, BERNHARD.
1868. Aristotelis de partibus animalium libri quatuor. *See* ARISTOTLE.

LANGSDORF, GEORG HEINRICH VON [1774–1852].
1813–14. Voyages and Travels in Various parts of the World, 1803–7. *2 vols. 4to.* *London.*
Rare English translation of the original German edition, 1812, in which the natural history of the countries visited is not forgotten.

LANIER, SIDNEY [1842–81].
1899. Bob; the story of our mocking-bird. *8vo. pp. 12+64. 16 pl. (col.).* *New York.*

LANKESTER, EDWIN [1814–74].
1855. The natural history of Dee Side and Braemar. *See* MACGILLIVRAY, WILLIAM.

[**1860**]. The uses of Animals in relation to the industry of Man, etc. *8vo. pp. 8+380. illust. in text.* *London.*

LANKESTER, EDWIN RAY [1847–1929].
1870. On comparative Longevity in Man and the Lower Animals. *8vo. pp. 9+135.* (Wanting.) *London.*
One of the earliest and best contributions of this well-known naturalist to vertebrate zoology.

1880. Degeneration; a chapter in Darwinism. *pp. 6+75. illust.* *London.*

1891. Zoological articles, contributed to the Encyclopaedia Britannica. *4to. pp. 8+195. illust.* *Edinburgh.*

1898–1902. The scientific memoirs of Thomas Henry Huxley. *See* HUXLEY, T. H.

1900–9. A treatise on zoology. *9 vols. 8vo. illust.* *London.*

1905. Extinct animals. *8vo. pp. xxiii+331. 218 figs. index.* *New York.*

1910. A history of birds. *See* PYCRAFT, W. P.

1910. Monograph of the Okapi. Atlas, *pp. xii. 48 pl. See* BR. MUS. NAT. HIST. *London.*

[**1915**]. Diversions of a naturalist. 2nd ed. *pp. xv +416. 43 figs. index.* *London.*

1919. Science from an Easy Chair. 14th ed. *12mo. 66 illust.* *London.*
A cheap reissue of this charming book.

[**1920**]. Secrets of earth and sea. *12mo. pp. xvii+ 243. 60 figs. index.* *London.*

1920. More Science from an Easy Chair. *12mo. 34 illust.* *London.*
A cheap reissue, in part, of *Science from an Easy Chair*: Second series, 1912.

LANNING, GEORGE [1852–1920].
1911. Wild life in China; or, Chats on Chinese birds and beasts. *8vo. pp. xvi+255. T. of c. append.* *Shanghai.*

LANSDELL, HENRY [1841–?1913].
1893. Chinese Central Asia; a ride to Little Tibet. *2 vols. 8vo.* Vol. I, *pp. xl+456. 60 figs. 1 map.* Vol. II, *pp. xiii+512. 19 figs. 2 maps. append. index.* *London.*
A companion work to the author's *Russian Central Asia*, 1885. During the journey many specimens of the fauna of the country were collected and a list made of the Aves appears in Appendix A pp. 410–14.

LANSING, *Mrs.* JENNY H. [1840–?1908] and **HOFFMANN,** RALPH.
1898. Bird world; a bird book for children. *8vo. pp. viii+214. 13 pl. 65 figs. (8 col.). append. index.* *Boston.*

LANZONI, GIUSEPPE [1663–1730].
1689. Zoologia parva; sive, Tractatus de animalibus ad medicinam facientibus. *12mo. pp. 10 +161.* *Ferrariae.*

LA PÉROUSE, JEAN FRANÇOIS DE GALAUP [1741–88?].
(**1798**) An VI. Voyage autour du Monde, etc. *4 vols. 4to. text. 1 vol. folio. atlas.* *Paris.*
The second edition of this famous expedition, so productive of scientific results, for zoology in particular. *See also,* LABILLARDIÈRE, J. J. DE.

(1798) An VI. Voyage around the World. Tr. from the French first edition. Numerous pl. reduced in size from the French (large) 4to re-engraved. *3 vols. 8vo.*

1799. A voyage round the World . . . by the Boussole and Astrolabe. *2 vols. folio. With folio atlas.* English tr.

LAPLACE, CYRILLE PIERRE THÉODORE [1793–1875].

1839. Voyage autour du monde par les mers de l'Inde et de Chine exécuté sur la corvette de l'état la Favorite pendant les années, 1830–32. Vol. 5. *8vo. pl.* *Paris.*

CONTENTS: Zoologie par J. F. T. Eydoux.

This is that part of the report of a celebrated voyage dealing with the zoology.

LA PLATA—MUSEO.

1891–1903. Annales—Sección Paleontológica.

1893–5. Annales—Sección Zoológica.

LARDNER, DIONYSIUS [1793–1859].

1835. The cabinet Cyclopaedia conducted by . . . D. Lardner . . . Natural history. Vol. 115.

1836–7. The cabinet cyclopaedia. Natural history. Vols. 117–18.

n.d. Another edition undated.

LA ROCHELLE.

1864–1911. Annales de l'Académie des Sciences Naturelles. Vols. 19–20, 24, 26–32, 34–6.

LASKEY, W.

1919. Aviaries, bird-rooms and cages. *See* NORMAN, H.

n.d. Budgerigars and cockateels. *See* ARTHUR, C. P.

LATASTE, FERNAND. **1885–99.** *See* EXPLORATION SCIENTIFIQUE DE LA TUNISIE.

LATHAM, JOHN [1740–1837].

1781–5. A general synopsis of birds. *3 vols. 4to. 106 col. pl.* *London.*

For the times in which he lived Dr. Latham's treatise is in many respects remarkable for its comprehensiveness and completeness. A devotee of Linnaeus he was prejudiced against the admission into scientific classification of new genera and species although he was advanced enough to adopt several of these. He added later to this illustrated history of the birds of the world Supplement [I], 1787, Supplement II, 1801, and between these dates an 'Index ornithologicus, 1790'—all of which are separately noticed in this catalogue. A collection of the Synopsis, Supplements, and Index will be found in the Mullens-Swann *Bibliography*, pp. 340–1.

1787. Supplement to the General Synopsis of Birds. *4to. pp. iii+298. illust. title. col. pl. CVII–CXIX. index.* *London.*

Contains additions to reviews of the material in the author's *General Synopsis of Birds*, 1781–5.

1790. Index ornithologicus, sive Systema ornithologiæ; complectens avium divisionem in classes, ordines, genera, species, ipsarumque varietates: adjectis synonymis, locis, descriptionibus, &c. *2 vols. 8vo.* Vol. I, *pp. xviii+466.* Vol. II, *pp. 467–920.* *London.*

One of the three works supplementary to the author's *General Synopsis of Birds*, 1781. It is in reality a systemic list of the whole class Aves. It forms a Latin thesis on the higher groups and species, to the latter of which Latham now gives binomial titles which in his earlier work were considered under their vulgar names only.

1791–1812. Allgemeine Uebersicht der Vögel. Uebersetzt von Bechstein. 8 Theile, nebst Register. *180 col. pl.* *Nürnberg.*

A German translation and adaptation of Latham's *Synopsis*, in eight parts.

1801. Supplementum indicis ornithologici, sive systematis ornithologiae. Studio et opera. *4to. pp. 74.* *London.*

A continuation of the *Index ornithologicus*, 1790.

1801. Supplement II to the General Synopsis of birds. *4to. pp. 376+20. 140 col. pl. index.* *London.*

There seems to be some doubt as to the exact date of issuing this supplement, which forms a revised, amended, and descriptive list to date of publication of such species as appeared to the author to require notice.

1809. J. Lathami Systema Ornithologiae, sive index Ornithologicus . . . Editio nova . . . locupletata curis et opera E. Johanneau. *12mo. pp. 444.* *Paris.*

This copy of a fundamental work of extreme value to the systematic student was purchased at the Milne-Edwards sale many years ago by Dr. Chas. Richmond and long used by him as a work of reference. It forms a unique author's copy with MS. additions by Johanneau and Milne Edwards. See the chapter on *Unica* in this INTRODUCTION.

1821–8. A general history of birds. *10 vols. and 1 vol. index. 4to. 193 col. pl.* *Winchester.*

In this copy the index to the 10 vols. is bound separately. The whole work has been rewritten to date. The nomenclature, apart from the scientific names in the synonymy, is in the vulgar tongue. The author evidently expected that the systematic titles would be furnished by later systematists. A few new bird portraits are provided, on additional plates; otherwise the treatise contains much the same information as is found in the earlier works of this author. The volumes (a careful collation of which will be found in the *Ayer Cat.*, p. 376–7) are indispensable to the research student.

1827–8. MS. appendix to Latham's birds with original paintings by F. J. Shore. *See* ORIGINAL DRAWINGS. F. J. SHORE.

LATHAM, ROBERT GORDON [1812–88].

1850. The natural history of the varieties of man. *8vo. pp. 28+574. illust. text.* *London.*

LATHAM, SYMON.

1633. Lathams Falconry; or The faulcons lure, and cure: in two books. The first, concerning the ordering and training up of all hawkes in generall; especially the Haggard Faulcon gentle. The second, teaching approved medicines for the cure of all diseases in them. 2nd ed. *12mo. pp. (24)+147. vignette. T. of c.* *London.*

This is the first book of the second edition: quite as good as the first edition, 1615, of which according to Harting it is a reprint without alteration. Less desirable editions were published in 1653 and 1658.

1633. Lathams new and second booke of faulconry, concerning the ordering and training up of all such hawkes as was . . . left unmentioned in his printed booke of the Haggard Faulcon and Gerfaulcon, etc. 2nd ed. *12mo. pp. (22)+148. 34 figs. T. of c.* *London.*

The second book of the second edition bound up as usual with the first book. The engraved title differs somewhat slightly from that of the first book. The woodcuts in the second part of this edition are those from woodcut titles to the second part of the first edition.

LA TOUCHE, JOHN DAVID DIGUES.

1925–6. A handbook of the birds of eastern China (Chihli, Shantung, Kiangsu, Anhwei, Kiangsi, Chekiang, Fohkien, and Kwangtung provinces). *Pts. 1–3 in 1 vol. 8vo. 8 pl. 1 col. map.* *London.*

This informative, well-written monograph is in course of preparation, three parts having been so far published, and 21 families dealt with.

LAUBMANN, ALFRED.

1930. Vögel. (Wissenschaftl. Ergebnisse der Deutschen Gran-Chaco-Expedition.) *4to. pp. 334. 31 pl. 13 figs. in text. index. Stuttgart.*

A systematic and up-to-date account of the birds of Argentina and neighboring areas. This volume is one of six, prepared by various well-known zoologists, based on the German Expedition under Dr. Krieg, 1925–6. *See also* WISSENSCHAFTLICHE ERGEBNISSE D. DEUTSCHEN GRAN-CHACO-EXPEDITION, 1930.

LAUDER, THOMAS DICK [1784–1848] and **BROWN,** *Capt.* THOMAS.

1833. Parrots. (The miscellany of natural history, vol. I.) *8vo. pp. x+170. 35 pl. (col.). 1 pl. (diagr.). 1 fig. T. of c. Edinburgh.*

Following a sketch of John James Audubon, with portrait, comes a discussion of the physical, intellectual, and imitative faculties of parrots, with an account of each species.

n.d. Macaws, cockatoos, parrakeets, and parrots; with chapters on diseases and cages from Karl Russ. *8vo. pp. (4)+130. 24 pl. 1 fig. T. of c. London.*

LAUGIER DE CHARTROUSE, MEIFFREN.

1838. *See* TEMMINCK, COENRAAD J.

LAUSANNE. Musées d'Histoire Naturelle.

1887–1911. Rapport des Conservateurs.

LAUSANNE. Société Vaudoise des Sciences Naturelles.

1922–*date.* Mémoires.

LAVALLE, A.

n.d. Die Rasse- und Nutzgeflügelzucht. 2nd ed. *8vo. pp. 23. 5 pl. (1 col.). 4 text cuts. Berlin.*

LA VARRE, WILLIAM J. [1898–].

1919. Up the Mazaruni for diamonds. *8vo. pp. xiv+139. 16 pl. T. of c. Boston.*

British Guiana sketches, with references to the birds, &c., and an account of the native Indians shooting animals with poisoned arrows by means of a long reed blow-pipe.

LAVATER, J. R.

1700. Historiae Helveticae Naturalis prolegomena Publicae Eruditorum sunetesei subjecta. *8vo. pp. 30. Tiguri.*

An inaugural dissertation (for a medical degree) on an introduction to the natural history of Switzerland. A fairly good bibliography accompanies the Latin text.

LAVAUDEN, LOUIS. **1924.** *See* BABAULT, GUY.

****, **BLANCHET,** A., and **BÉDÉ,** P.

1924. Contributions à l'ornithologie Tunisienne pour servir de complément et de supplément aux [Whitaker's] Birds of Tunisia. *8vo. pp. 23. 1 pl. Tunis.*

LAW, SATYA CHURN.

[1925]. Pet birds of Bengal. Vol. I. *8vo. pp. xxix+366. front. (map). 7 pl. 41 figs. index. Calcutta.*

This volume (which may be unique) is interesting mainly because it is a *printer's proof* submitted to Thacker, Spinx & Co., Calcutta, that they might decide whether they would allow their *imprimatur* as publishers to appear on it. The book was written and printed by native Indians and, everything considered, is a fair sample of bookmaking, in spite of inverted illustrations (see p. 98) and other defects. This copy was purchased on Dec. 17, 1924, from the manager of Thacker, Spinx & Co., who said that the date on the title-page should be 1925 and not 1923 as the treatise had at that date not yet been published.

LAWRENCE, GEORGE NEWBOLD [1806–95].

1858. Reports of explorations and surveys . . . for a railroad from the Mississippi River to the Pacific Ocean . . . Birds; by S. F. Baird. With the co-operation of . . . G. N. Lawrence. *See* UNITED STATES. PACIFIC RAILROAD SURVEYS.

1860. Birds of North America, &c. *See* BAIRD, S. F.

1870. Birds of North America. Another edition. *See* BAIRD, S. F., CASSIN, and LAWRENCE.

1871. Natural history of the Tres Marias and Socorro. *See* GRAYSON, *Col.* A. J.

1874. Birds of W. and N.W. Mexico. *Boston.*

1875. Birds of southwestern Mexico. Collected by Francis E. Sumichrast for the United States National museum. *8vo. pp. 56. index. Washington.*

Author's edition of an important descriptive catalogue of 321 species of Mexican birds.

1892. Bibliography [of the works] of G. N. Lawrence by L. S. Foster. *pp. 124.* (Bull. U.S. National Museum.)

Author's excerpt.

LAWRENCE, JOHN [1753–1839].

1809. History and Delineation of the Horse, etc. *4to. illust.* [O. 3184.] *London.*

LAWRENCE, WILLIAM [1783–1867].

1816. An Introduction to Comparative Anatomy and Physiology. *8vo.* [O. 3185.] *London.*

LAWYER, GEORGE A.

1918. Federal protection of migratory birds. Separate from Yearbook of the Department of Agriculture, 1918, No. 785. *8vo. pp. 16. 3 pl. 2 figs. (maps). T. of c. Washington, D.C.*

This pamphlet deals with the present Federal protection of, and future outlook for migratory birds.

LAYARD, EDGAR LEOPOLD [1824–1900].

1867. The birds of South Africa; a descriptive catalogue of all the known species occurring south of the 28th parallel of south latitude. *8vo. pp. 16+382. 1 pl. Cape Town.*

This well-known and fundamental monograph includes in a description of 702 species a number of birds new to ornithologic science. The volume in hand is the library copy of the Author's friend, Frederic R. Surtees. The latter supplied the autographs on p. iii, the original letters of G. R. Gray (p. 3) and Bowdler Sharpe (p. 53), and had bound with this monograph J. H. Gurney's review of and additions to the Catalogue. Many clippings and notes were also added by the same hand. The following original drawings—probably painted by Mr. Surtees—have been inserted on the pages indicated: Nest of the Weaver Bird, frontispiece; Alcedo cristata, p. 65; Nests of Hyphantornis, p. 179; Kaffir Finch, p. 184; Quail's Egg, p. 275; Charadrius bitorquatus, p. 296; Nycticorax africanus, p. 310.

1875–84. The birds of South Africa. *4to. pp. 25+890. 12 col. pl. London.*

The above admirable treatise appeared in six parts and is a much enlarged edition of the *editio princeps* of 1867. It is edited by Bowdler Sharpe who rewrote much of it and described several new species.

n.d. Catalogue of [320] Ceylon Birds. *8vo. pp. 2. Colombo.*

LEA, JOHN.

1909. The romance of bird life; being an account of the education, courtship, sport and play, journeys, fishing, fighting, piracy, domestic and social habits, instinct, strange friendships, etc. *8vo. pp. 376. 26 pl. index. Philadelphia.*

LEACH, J. A. [d. 1929].

1911. An Australian bird book; a pocket book for field use. *12mo. pp. 2+200. many col. pl. and text-figs. index.* *Melbourne.*

A very useful and popular guide to the birds of Australia, with numerous subsequent reprintings.

1916. An Australian bird book; pocket book for field use. 3rd ed.

1917. An Australian bird book, etc. 4th ed.

[1918]. An Australian bird book. [Printer's paged proofs for the 5th ed.]

The copy in hand is a unique present to the E.S.W. Library from the author, in the shape of marginal and other notations on the book proof for the 5th edition.

1923. An Australian bird book; a complete guide to the identification of Australian birds. *12mo. pp. 232. 390 col. figs. 296 text-figs. index.* *Melbourne.*

This edition of an extremely useful pocket guide to Australian birds has a supplement that is provided with an index.

[1923]. Supplement to the 5th ed. of An Australian bird book. *8vo. no t.-p. 10 fol.* *(Melbourne.)*

Corrected page proof with notes, presented by the author to the E.S.W. Library.

n.d. A descriptive list of the birds native to Victoria, Australia. *12mo. pp. 74. index.* *Melbourne.*

A useful descriptive list arranged in columns of facts about the birds issued by the Education Dept. of Victoria.

n.d. Royal Australasian Ornithologists' Union. Official check list of Australian birds. 2nd ed. *4to. 29 fol.* Rough draft to R.A.O.U. members with letter from J. A. Leach, President. *See also* ROYAL AUSTRALASIAN ORNITHOLOGISTS' UNION. *Melbourne.*

This is an advance, typed manuscript, a corrected copy. Presented to the E.S.W. Library by Dr. Leach.

LEACH, WILLIAM ELFORD [1790–1836].

1814–17. The zoological miscellany; being descriptions of new or interesting animals. *3 vols. 8vo.* Vol. I, *pp. 144. 60 pl. (col.). 2 indexes.* Vol. II, *pp. 154. 60 pl. (col.). 2 indexes.* Vol. III, *pp. 151. 29 col. pl. index.* *London.*

1818. *See* TUCKEY, J. K.

1882. Leach's Systematic Catalogue of the specimens of the indigenous Mammalia and Birds in the British Museum. Edited by O. Salvin. *pp. iv +42.* Originally issued by the Trustees of the British Museum. *See also* WILLUGHBY SOCIETY.

LEAR, EDWARD [1812–88].

1820–36. 43 sketches and water-color portraits of animals. *See* ORIGINAL DRAWINGS.

1830–2. Illustrations of the family of Psittacidae, or parrots. *folio. pp. (6)+(2). 42 pl. (col.).* *London.*

A series of beautiful hand-colored lithographs by the author, but without text. The work is noted not only for its artistic value, but also for its accuracy of portrayal. It was issued in 12 parts, the contents of all, and the dates of some, being given by Mathews (*Austr. Av. Record,* 1, pp. 23–5, 1912) from the original wrappers. The first part bears date Nov. 1 1830, and the last, on the title-page, 1832.

****** and SOWERBY,** J. DE CARLE.

1872. Tortoises, Terrapins and Turtles drawn from life. *folio. pp. 6+16. 70 pl.* *London.*

This is a beautiful, composite work for which the two artists furnished the drawings and John E. Gray the letterpress. 40 plates were used also to illustrate T. Bell's *Monograph of the Testudinata.*

LEBENSBILDER AUS DER TIERWELT EUROPAS.

Bd. II. Säugethiere und Vögel.
Bd. IV. Antilopen.
See also ANONYMOUS.

LECHE, WILHELM. **1859–97.** *See* BRONN, H. G. Die Klassen, etc., 1859–97.

LECHNER, A. A. VAN PELT. *See* VAN PELT LECHNER, A. A.

LECKY, WALTER *(pseud.).* *See* MCDERMOTT, WILLIAM A.

LÉCLUSE (or L'ÉCLUSE) JULES CHARLES DE [1526–1609]. *See also* CLUSIUS, CAROLUS.

1605. Caroli Clusii Atrebatis . . . Exoticorum libri decem; quibus animalium, etc. *folio. illust. See also* CLUSIUS, C. DE. *Antverpiae.*

The Osler Library has several medico-zoological works of this well-known writer.

1611. Caroli Clvsii Atrebatis Cvræ posteriores, sev Plurimarum non antè cognitarum, aut descriptarum stirpium, peregrinorumque aliquot animalium novæ descriptiones, etc. *folio. pp. 3+ 71+24.* *Antverpiae.*

A later, amended edition of the original issue dated 1605.

LE COQ, ALBERT VON [1860–].

1913. Bemerkungen über Türkische Falknerei. *folio. pp. 12. 14 figs. in text.* *Leipzig.*

An interesting and well-illustrated account of falconry in Turkey with reproductions of photographs of hawks and eagles and their accoutrements as birds of the chase. The brochure is separately bound, from the Cabanis-Reichenow collection.

LEDRU, ANDRÉ PIERRE [1761–1825]. **1810.** *See* SONNINI DE MANONCOURT, C. N. S.

LEE, OSWIN A. J.

1896–9. Among British birds in their nesting haunts. *4 vols. folio.* Vol. I, *pp. vi+159. 40 pl. 15 figs.* Vol. 2, *pp. vi+145. 40 pl. 15 figs.* Vol. 3, *pp. vi+155. 40 pl. 14 figs.* Vol. 4, *pp. vi+157. 40 pl. 16 figs.* *Edinburgh.*

A series of fine photogravures showing the nesting sites of 122 species, with descriptions of their habits, &c. The book (never completed) was issued in 16 parts of 10 plates each.

LEE, RAWDON B.

1899. A history and description of the modern [non-sporting] dogs of Great Britain and Ireland. New ed. *8vo. pp. 10+428. 23 pl.* *London.*

LEE, *(Mrs.)* SARAH (born WALLIS) [1791–1856].

?1850. Anecdotes of the habits and instincts of birds, reptiles, and fishes; with illust. by Harrison Weir. *12mo. pp. x+11–420. front. 5 pl. T. of c.* *New York.*

The author's name was first Miss Sarah Wallis, then Mrs. T. E. Bowdich and, finally, Mrs. Sarah (Robert) Lee. *See* BOWDICH, T. H.

LEEDS NATURALISTS' CLUB AND SCIENTIFIC ASSOCIATION.

1886–90? Transactions.

LEEGE-JUIST, OTTO.

1905. Die Vögel der ostfriesischen Inseln. *8vo. pp. 10+198. index.* *Emden.*

A concise descriptive catalogue (with bibliography) of the birds of East Frisia with their local and systematic names. The species nesting on the islands are specially indicated.

LEEUWENHOEK, ANTONI VAN [1632–1723].

1685–1718. (Works. 5 vols.) In Dutch.

A complete set of all this naturalist-physician's writings. [O.]

1686. Ontledingen en Ontdekkingen van levende Dierkens in de Teel-Deelen van verscheyde Dieren, Vogelen en Visschen, etc. *4to.* [O.] *Leyden.*

1695. Arcana naturae detecta. *4to. illust.* [O.] *Delphis Bat.*

1697. Continuatio Arcanorum Naturae, etc. *4to. illust.* [O.] *Delphis Bat.*

1719. Epistolae physiologiae . . . variorum Animalium. *4to. illust.* [O.] *Delphis.*

LEFEBVRE, CHARLEMAGNE THÉOPHILE [1811–60], *ed.*

[1845–51]. Voyage en Abyssinie exécuté pendant les années 1839, 1840, 1841, 1842, 1843, par une commission scientifique. *6 vols. 4to. pl. and atlas.* *Paris.*

A famous scientific expedition, made under the auspices of the French Government. The Zoology, part 4, of the records, was described by O. des Murs, F. Prévost, Mm. Guichenot, and Guérin-Méneville.

LEFÈVRE, AUGUSTE ALFRED [1828–].

1848. Atlas des œufs des oiseaux d'Europe. *8vo. 17 pls. 136 col. pl.* *Paris.*

Names and synonyms are given at the bottom of each plate. The figures show the great variation in the markings of many eggs. An English translation was published at both Paris and London.

LE FÈVRE, JACQUES *d'Étaples* (*cir.* 1455–1537).

1521. In hoc opere continentur totius philosophie naturalis paraphrases: hoc ordine digestae. *356 fol. illust.* Simonem Colineu. *Paris.*

A rare volume of great interest to students of vertebrate zoology. Not in the *Cat. Br. Mus.* (*Nat. History*).

LEFFINGWELL, WILLIAM BRUCE.

1888. Wild fowl shooting. Containing scientific and practical descriptions of wild fowl: their resorts, habits, flights and the most successful method of hunting them. *8vo. pp.* (*4*)+*373. 5 pl. 8 figs. T. of c.* *Chicago.*

One of a numerous class of so-called 'sporting' monographs, but relieved by short descriptions of wild fowl, their plumage, their weight, general habits, &c.

1890. Shooting on upland, marsh, and stream. *pp. 473. front. 13 pl. 28 figs. T. of c.* *Chicago.*

A companion volume to the author's *Wild Fowl Shooting*. It consists of a number of articles by well-known 'sportsmen', each writing on the game bird of which he has had the most experience.

LEGG, JOHN [1755–1802].

1780. A discourse on the emigration of British Birds . . . By a Naturalist. *4to. pp. ix+45.* *Salisbury.*

1814. A discourse on the Emigration of British Birds; or, This Question at last Solv'd, etc. *8vo. pp. xv+64.* *London.*

There were several editions of this work, this one being ascribed to George Edwards (of Market-Lavington) whose name appears in the title as author. As in most copies, the date (1814) is erased! See Mullens and Swann's *Bibliography of British Ornithology*, p. 349.

n.d. A discourse on the emigration of British birds. *folio.* *See* EDWARDS, GEORGE, OF MARKET-LAVINGTON. *Editio altera.*

LEGGE, WILLIAM VINCENT.

[1878]–80. A history of the birds of Ceylon. *4to. pp. xlvi+1,237. 34 pl.* (*col.*). *1 pl.* (*diagr.*). *1 map* (*col.*). *11 woodcuts* (*32 figs.*). *T. of c. 2 append. 2 indexes.* *London.*

A complete and important monograph of the 371 birds of Ceylon, issued in three parts the dates of which are as follows: pt. I, Nov. 1878; pt. II, Sept. 1879; and pt. III, Sept. 1880. Part II contains a reprint of the first 13 lines of p. 345 which is bound in with the original cover at the end of the volume. The hand-colored plates by J. G. Keulemans are very fine. The present copy contains the original and second subscription lists as well as the three original covers which are bound in at the end of the volume. The volume in hand belonged to the naturalist C. H. Marshall, he being one of the original subscribers.

1880–[1?]. A history of the birds of Ceylon. *4to. pp. xlvi+1,237+4. front.* (*map col.*). *34 pl.* (*col.*). *1 pl.* (*diagr.*). *11 woodcuts* (*32 figs.*). *T. of c. 3 append. 2 indexes.* *London.*

This is a second edition containing a third appendix, which does not appear in the first issue. This appendix was published as an afternote with the second issue of the book, Feb. 1881. The original list of subscribers does not appear in this issue, only the second one. Only one cover is bound in at the end of this volume dated 1880, and giving the contents of the whole book, so that possibly it was the only one issued with this second printing.

LE GRAND, ANTOINE [17th cent.].

1673. Historia Naturæ, Variis Experimentis & Ratiociniis Elucidata. Secundum Principia Stabilita In Institutione Philosophiæ Edita ab eodem Authore. *8vo. pp. 22+4+15.* *Londini.*

From the library of Sir Joseph Copley. The rare first edition (on natural history) not listed in the *Cat. Br. Mus.* (*Nat. Hist.*). *See also* ANTONIUS LE GRAND.

LEGUAT, FRANÇOIS [1637–1735].

1708. Voyage et Aventures en deux Isles desertes des Indes orientales. *2 vols. illust.* *London.*

Among other figures is a drawing of the Dodo, from Mauritius.

1891. Voyage to Rodriguez, Mauritius, etc. *2 vols. illust.* *London.*

Translation of the original French treatise with all the maps, figures &c., carefully reproduced by the Hakluyt Society.

LEHMANN, OSKAR.

1895. Unsere Vögel. *8vo. pp. 12+100. 12 col. pl. 200 figs.* *Stuttgart.*

LEICESTER LITERARY AND PHILOSOPHICAL SOCIETY.

1835. Transactions.

1879. Transactions.

1879/80. Transactions.

1886–*date.* Transactions.

LEIDEN. *See* LEYDEN.

LEIDY, JOSEPH [1823–91].

1852. Description of . . . extinct mammalia and chelonia . . . in Nebraska, etc. *4to.* (Wanting.) *Washington.*

One of the first paleontological works of this noted naturalist.

1852. *See* UNITED STATES. GEOL. SURVEY, WISCONSIN, etc.

[1853]. The ancient fauna of Nebraska. A description of remains of extinct mammalia and chelonia from the *mauvaises terres* of Nebraska. *folio. pp. 126.* (Author's excerpt from *Smithsonian Contributions to Knowledge.*) *Washington.*

[1873]. Contributions to the extinct vertebrate fauna of the western territories. *folio. pp. 358.* *See also* UNITED STATES. SURVEY TERRITORIES.

LEIGH, CHARLES [1662–?1701].
1700. The natural history of Lancashire, Cheshire, and the Peak, in Derbyshire. *3 vols. 4to. pp. (22) +112+(35). 24 pl. 1 map. (col. fold.). index.* *Oxford.*

LEIPZIG. Archiv für die systematische Naturgeschichte. 1804. *See* ARCHIV . . . LEIPZIG.

LEIPZIG. Beitraege z. Naturkunde. Kiel. 1805–10.

LEIPZIG.
1755–1922. Sitzungsberichte der Naturforsch. Gesellschaft zu Leipzig. Jahrg. 1–48.

LEIPZIGER MAGAZIN Z. NATURKUNDE, etc. Leske u. Hindenberg.
1784. Jahrg. *Leipzig.*

LEISLER, JOHANN PHIL. ACHILLES.
1811–15. Nachträge zu Bechsteins Naturgeschichte Deutschlands. *2 pts. 8vo. col. front.* Heft I=*pp. 12+99+1. 1 col. pl.* *Hanau.*
This is a rare but important item for zoologists. The Library copy (Erstes Heft) was secured for the Compiler by Dr. C. W. Richmond. There is a complete issue in the library of the London Zoological Society but none in the larger collections of the British Museum. The second part (on bats) was issued four years after the first.

LELAND, CHARLES GODFREY [1824–1903].
1864. Legends of the birds. *8vo. pp. (4)+46. 16 figs. (12 col.).* *Philadelphia.*
Curious legends of birds, in verse, with explanatory footnotes. There are colored illustrations, about 1½ inches square, pasted in the centre of floral designs occupying a whole page. The book is very scarce.

LELAND STANFORD UNIVERSITY. Contributions from the Hopkins Marine Laboratory.
1895–1904. Nos. 1–32. (Mostly on Fishes and Flora.) (All pub.)

LEMAIRE, C. L.
1836. Bibliothèque zoologique. Histoire naturelle des oiseaux exotiques. *8vo.* *Paris.*
Actually the first edition; the second was published in 1837 with a change of title.

[**1837**]. Histoire naturelle des oiseaux d'Europe. Première partie. Passereaux. *8vo. pp. (4)+203. 80 pl. (col.). 1 fig. (col.). T. of c.* *Paris.*
Passerine Birds of Europe, drawn from nature by Pauquet.

LE MAOUT, EMMANUEL, i.e. JEAN EMMANUEL MARIE [1800–77].
1853. Histoire naturelle des oiseaux, suivant la classification de M. Isidore Geoffroy-Saint-Hilaire. *4to. pp. 48+425. 35 col. pl. figs. in text.* *Paris.*
An excellent, comprehensive account of the birds of the world, with a description of selected species and tables for the recognition of orders, families, and genera and sub-genera. This work is very rare.

1855. Histoire naturelle des oiseaux. 2nd ed. *4to. pp. (2)+xlviii+425+(3). front. 34 pl. (15 col.). 504 figs. T. of c. index.* *Paris.*

LEMBEYE, JUAN.
1902. Aves de la isla de Cuba. *4to. pp. 136+4. 20 pl. index.* *Berlin.*
This is a facsimile copy of the original (1850) edition—a very rare treatise on the birds of Cuba with an account of their distribution, synonymies, characteristics, &c. The index gives both the vernacular and zoological names. Eighteen of the 20 plates ,copied from Audubon, were colored.

LEMBKE (or LEMBCKE), GEORG.
[**1800**]–**17.** Teutsche Ornithologie. *See* BORKHAUSEN, M. B. and others.

LE MESSURIER, AUGUSTUS [1837–].
1904. Game, shore, and water birds of India. 4th ed. *8vo. pp. xvi+323. 29 pl. (col.). 8 diagr. 180 figs. 5 tab. index.* *London.*
The first edition was privately printed and issued in 1874, the second in 1878, and the third in 1887.
The present copy has been augmented by 30 colored plates by various artists.

LEMETTEIL, E.
1874. Catalogue raisonné ou histoire descriptive et méthodique des Oiseaux de la Seine-Inférieure. *2 vols. illust.* *Rouen.*
A very rare treatise on the birds of Northern France. Not listed in the *Cat. Br. Mus. (Nat. Hist.).*

LE MOINE, JAMES MACPHERSON [1825–1912].
1860. Ornithologie du Canada. D'après la nomenclature de Baird. *2 vols. 12mo.* (Cover title, Les oiseaux du Canada.) Vol. I (Pt. I), *pp. iii+100+2.* Vol. II (Pt. II), *pp. 10+398.* *Québec.*
There are two practically identical editions of this early and important, systematic work on the birds of Canada. The first edition was published in April 1860, the second printing in May 1861. Various covers and cover titles were indiscriminately employed for the two parts (or volumes) of the several copies in the E.S.W. Library. These are: *Histoire Naturelle du Canada, Les Oiseaux; Ornithologie du Canada,* and *Les Oiseaux du Canada.* Sometimes these covers bear the number of the edition, part, and date of issue; sometimes one or all is missing. One of the volumes is an autographed presentation copy from the author.

1861. Ornithologie du Canada. *2 vols. 12mo. pp. 4+6+398.* *Québec.*
Issued in May 1861, and practically identical with the *editio princeps* of 1860.

1863–4. Maple Leaves, etc. 1st and 2nd Series. *2 vols. in 1. 8vo.* *Quebec.*

1864. Tableau synoptique de l'ornithologie du Canada; classification et nomenclature du 'Smithsonian Institution' de Washington. *12mo. pp. 24.* *Quebec.*
A very rare little pamphlet that gives a list of 250 Canadian birds (with their native names), mostly compiled from the Smithsonian Report, 1858. This useful work, fundamental in character, is not listed in any of the larger catalogues. The finest copy is in the National Museum at Ottawa, and another in the E.S.W. Library; none in the *Cat. Br. Mus. (Nat. Hist.),* nor in the library of the Smithsonian Institution at Washington. The Director of the Canadian National Museum kindly presented the E.S.W. Library with an excellent photostat of Le Moine's very rare tractate.

1866. The birds of Canada. A popular lecture, delivered before the Literary and Historical Society of Quebec, April 25th, 1866. Reprinted from the Transactions of the Society. *8vo. pp. 27 +29–32+33–4. front.* *Quebec.*

1892. The birds of Quebec. *8vo. pp. 8.* (Canadian Record of Science, 1892.)
Contains lists of Lower Canadian birds.

LEMOINE, VICTOR [d. 1897].
1878–81. Recherches sur les oiseaux fossiles des terrains tertiaires inférieurs des environs de Reims. *2 pts. 4to.* Pt. II, *pp. (4)+75–170. 6 pl. (fold.).* *Reims.*

LEMOS, PEDRO JOSEPH [1882–].
c. **1920.** The bird in art. 5th ed. *4to. pp. [4]. 16 pl.* *Worcester, Mass.*
The Compiler has gathered materials for a companion volume—now in MS. form—*Bird Portraits in Ancient and Medieval Art*—for the E.S.W. Library.

LENINGRAD. *See* AKADEMIIA NAUK.

LENINGRADSKOE OBSHCHESTVO ESTESTVOISPYTATELEĬ. (**St. Petersburg Society of Naturalists.**)
1870–*date*. Trudy. *See also* VĬESTNIK ESTESTVOZNANĬĬA.

LENZ, FRIEDRICH [1889–].
1928. Einführung in die Biologie der Süsswasserseen. *8vo. pp. 8+221. illust.* *Berlin.*

LENZ, HARALD OTHMAR [1799–1870].
1838–43. Gemeinnützige Naturgeschichte. *4 vols. 8vo.* *Gotha.*
The library copies of this semi-popular natural history are made up of two volumes of the 1838 edition and two volumes dated 1843. Another set is in five volumes, the mammals from the sixth edition 1884, and the birds from the fifth edition, 1875. The work, by an able naturalist, circulated extensively in Germany.

1856. Zoologie der alten Griechen und Römer. *8vo. pp. 24+656.* *Gotha.*

1875–87. Gemeinnützige Naturgeschichte. 5th ed. *5 vols. 8vo. pl.*
Vol. 1. Saugetiere. 2. Vögel. 3. Reptilien, Amphibien, Fische und wirbellosen Thiere. 4. Pflanzenreich. 5. Mineralreich.
Vol. 1, 6th ed.
Also, in the E.S.W. Library, is a separately published volume (2) on the Birds, dated 1875.

LEONARD, HENRY C.
1873. Pigeon Cove and vicinity. *12mo. pp. viii+193. 30 figs. T. of c.* *Boston.*
An animal story of Pigeon Cove, Cape Ann, New England.

LEONARD, JOHN LYNN.
1924. First aid to animals. *8vo. pp. x+396. 37 figs. T. of c. index.* *New York.*
This useful and interesting and easily understood work is written for the layman, not the veterinarian.

LEOPOLDINISCH-CAROLINISCHE DEUT. AKAD. D. NATURFORSCHER.
1859–1923. Leopoldina. *Jena and Halle.*
1926–*date*. Leopoldina. *Leipzig.*
1757–*date*. Nova Acta.

LÉOTAUD, ANTOINE [1814–67].
1866. Oiseaux de l'île de la Trinidad (Antilles). *8vo. pp. 20+560. illust.* *Port d'Espagne.*
This carefully prepared and valuable treatise (published by national subscription) on the birds of Trinidad is the earliest general work on the fauna of the island. Dr. Léotaud describes 294 avian species, giving in all cases their zoological and vulgar names.

LEPEKHIN, IVAN IVANOVICH [1737?–1802].
1774–83. Tagebuch der Reise durch verschiedene Provinzen des Russischen Reiches in den Jahren 1768–1771; aus dem Russischen übersetzt von M. C. H. Hase. *3 vols. 4to. illust. pl.* *Altenburg.*
References to birds are scattered through the work. For example, on p. 221, the medium-sized Kassarka is identified with the Canada Goose, but the figure of it on plate 9 (part 3) shows it to be another species.

LE ROI, OTTO.
[1906]. Die Vogelfauna der Rheinprovinz. *8vo. pp. 323. index.* *Bonn.*
A separately issued, systematic account of 284 avian species frequenting the Rhine area. Both the vernacular and zoological names are given, with the natural history and other descriptive data, a valuable contribution to our knowledge of the subject. From the library of Prof. Reichenow. This author also wrote under the Teutonic name of König, A. F. (q.v.).

******** and **GEYR VON SCHWEPPENBURG,** HANS.
1912. Beiträge zur Ornis der Rheinprovinz. Erster Nachtrag zur 'Vogelfauna der Rheinprovinz'. *8vo. pp. 150. index.* *Bonn.*
Additional notes on the birds treated in the author's *Vogelfauna der Rheinprovinz* (q.v.) with a description of some species not mentioned in that work.

LEROY, E.
1883. Aviculture. La perruche ondulée et autres perruches acclimatées. 2nd ed. *12mo. pp. (8)+167. 3 pl. T. of c.* *Paris.*

1885. Aviculture. La poule pratique, par un praticien. *8vo. pp. (4)+256. 41 figs. T. of c.* *Paris.*

1893. Chez les oiseaux. *4to. pp. viii+295. 30 pl. 109 figs. T. of c.* *Paris.*
A natural history of birds, illustrated with remarkably fine woodcuts.

LÉRY, JEAN DE [1534–1611].
1578. Histoire d'un Voyage fait en la terre du Brésil. *8vo. pp. 71+489+15. text-figs.* *La Rochelle.*
Many editions, in Latin, French, and German, have been published of this valuable work, in which South American animals are frequently described. The above is the *editio princeps*, a very rare printing, not listed in the *Cat. Br. Mus. (Nat. History)*. A fifth French edition was published in Geneva in 1611.

LESCUYER, JEAN FRANÇOIS [1838–].
1885. Noms et classification des oiseaux de la vallée de la Marne. *2 pts. 8vo. pp. 28. fold. map.* *Saint-Dizier.*
A local list of useful proportions. The folding map is intended to be hung up for ready reference.

LESCUYER, M. F.
1876. Oiseaux de passage et tendues. *8vo. pp. 116. T. of c.* *Paris.*
A brochure dealing with the various French laws regulating bird-hunting and their effect upon indigenous and visitant bird life in France and elsewhere. The copy in hand was presented to Milne Edwards by the author.

LESLIE, A. STEWART.
1912. The Grouse in Health and Disease. Popular ed. *8vo.* *? London.*

LESLIE, GEO. D. [1835–].
1893. Letters to Marco. *8vo. pp. 18+260.* *London.*
Charming letters, *à la* Gilbert White, to an old college friend on natural history subjects.

LE SOUËF, A. S. and **BURRELL,** HARRY.
1926. Wild Animals of Australasia, etc. *8vo. illust.* *London.*
This interesting work embraces a study of the *Mammals of New Guinea and the Nearer Pacific Islands*, with a chapter on the Bats of Australia and New Guinea by E. Le G. Troughton.

LE SOUËF, WILLIAM HENRY DUDLEY.
1907. Wild Life in Australia. *8vo. pp. 15+439. 2 col. pl. figs. in text. 1 portr.* *Christchurch, N.Z.*
A very attractive account of the zoology and other departments of natural history.

******** and **LUCAS,** A. H. S.
1911. (The) birds of Australia, &c. *See* LUCAS, A. H. S. and LE SOUËF, W. H. D.

1922. Official guide to the gardens of the Royal Zoological and Acclimatisation Society of Victoria. *8vo. pp. 51. front. plan (fold.). 36 figs.* *Melbourne.*

LESSON, René Primevère [1794–1849].

1826–39. *See* VOYAGES, FRENCH. VOYAGE AUTOUR DU MONDE . . . SUR LA COQUILLE, 1822–5.

1827. Manuel de Mammalogie, etc. *12mo. pp. 15 +441.* *Paris.*

In this volume the versatile author describes briefly most of the species of the mammalian orders.

1828. Manuel d'ornithologie, ou Description des genres et des principales espèces d'oiseaux. *2 vols. 18mo.* Vol. I, *pp. iv+421.* Vol. II, *pp. 448.* *Paris.*

An important, concise little work describing the genera and species of birds of the world, with a review of previous systems of classification. An atlas of 129 plates was published to accompany this treatise. The present volumes are from the library of Prof. Cabanis and bear his autograph.

1828–37. Histoire naturelle générale et particulière des mammifères et des oiseaux découverts depuis 1788 jusqu'a nos jours. *11 vols. 8vo. pl.* *Paris.*

Contents. Vol. 1. Cétacés. 2–3. Races humaines. 4–5. Mammifères. 6–9. Oiseaux. 10. Oiseaux et mammifères. 11. Planches.

1829–33. Histoire naturelle des oiseaux-mouches. *8vo. pp. 46+223. 86 col. pl. T. of c.* *Paris.*

This fundamental classic is one of a well-known series of volumes on humming-birds by the same author. See *Histoire Naturelle des Colibris*, 1830, and *Les Trochilidées*, 1832. The present copy was issued at varying intervals in 17 parts. The final plates show anatomical details of some birds, and pictures of their nests.

1830–1. Traité d'Ornithologie, ou Tableau méthodique, etc. *8vo. pp. 32+659. 119 col. pl.* *Paris.*

An important work because it furnishes the author's opinions on avian nomenclature and classification and gives illustrated tables of the orders, sub-orders, families, tribes, genera, sub-genera and races of birds. It appeared in eight parts, the first four during 1830 and the rest in 1831.

1830–2. Histoire naturelle des colibris, suivie d'un supplément à l'histoire naturelle des oiseaux-mouches. *13 (? 14) pts. 8vo. pp. 10+196. 66 col. pl. index.* *Paris.*

This fundamental and well-known classic treatise on humming-birds was issued in parts and in four printings varying as to quality of paper, character of type, and coloring of the plates. The monograph is, in fact, a continuation or second volume of the writer's *Histoire Naturelle des Oiseaux-Mouches.*
The *Cat. Br. Mus.* (*Nat. Hist.*) gives the following dates of issue: Livraisons 1–3, 1830; 4–12, 1831; 13, 1832. In the E.S.W. Library is a very rare, complete, tall paper copy (one volume) of which the type has been entirely reset. Another copy, from the Godman Library, has the original wrappers bound in. On the last wrapper it states that the first part was issued in Oct. 1830; on the cover (in script) is the note '14e Livraison'; but it is a question whether a 14th part was ever published. The work was reissued in 1847.

1830–2. Centurie Zoologique, etc. *8vo. 80 col. pl.* *Paris.*

This fine example of colored atlas was published in *livraisons* between March 1830 and May 1832. It is a descriptive collection of drawings of rare animals by the artist Prêtre.

1831–4. *See* VOYAGES, FRENCH; AUX INDES-ORIENTALES.

[1832–5]. Illustrations de Zoologie, etc. *8vo. 60 col. pl.* Issued in 20 livraisons, with descriptive letterpress. *Paris.*

1832–3. Les Trochilidées; ou, Les colibris et les oiseaux-mouches, suivis d'un index général. *8vo. pp. 44+171. 66 col. pl.* *Paris.*

A classic work on humming-birds, issued in 14 parts. This volume (really the third of the author's extensive *Histoire Naturelle des Oiseaux*) includes a brief, systematic catalogue of 110 species. The copy in hand is from the Godman Library.

1835. Histoire naturelle des oiseaux de paradis et des épimaques. *2 vols. 8vo. pp. 41+248. 43 col. pl.* *Paris.*

A classic monograph, published in *livraisons*, on the Birds of Paradise. The best annotation is that of Zimmer (*Ayer Cat.*, p. 390).

1837. *See* BOUGAINVILLE, *Baron* DE, 'Thétis and Esperance'.

1842. Nouveau Tableau du Règne Animal . . . Mammifères. *4to. pp. 204.* (Wanting.) *Paris.*

In this list the author gives his ideas on classification and nomenclature of mammalia.

**** and **MÉNÉGAUX,** A., *ed.*

1913. Articles d'ornithologie de R.-P. Lesson . . . parus dans l'Écho du monde savant de 1842 à 1845. *8vo. pp. 280. front. (portr.). T. of c.* *Paris.*

LESSONA, Michele.

? 1890–2. Storia naturale illustrata. *4 vols. 4to. 2 vols.* Uccelli. *1 vol.* rettili—anfibi—pesci. *1 vol.* invertebrati. *About 900 pp. and 50 pl. in each vol. many figs. in text. indexes.* *Milano.*

One of the most comprehensive popular treatises in the Italian language.

LETTERS OF INFORMATION. Organ of the Nebraska Ornithologists' Union.

LETTERS. Manuscript and typescripts of zoologists. *See* ZOOLOGISTS, MANUSCRIPT AND TYPESCRIPT LETTERS OF.

LETTSOM, John Coakley [1744–1815].

1772. The Naturalist's and Traveller's Companion, etc. *8vo.* *London.*

Dealing chiefly with zoology and other departments of natural history. An extra (colored) plate is inserted in a copy from the Osler Library.

LEUCKART, Friedrich Sigismund [1794–1843].

1832. Allgemeine Einleitung in die Naturgeschichte. *8vo. pp. 130. 2 col. pl.* *Stuttgart.*

The first volume of G. W. Bischoff's *Naturgeschichte der drei Reiche.* The celebrated family of Leuckart naturalists confined their investigations of zoology almost entirely to invertebrates.

LEUNIS, Johannes [1802–73].

1860. Synopsis der Naturgesch. des Thierreichs. *8vo. pp. 66+1,014. 1,000 figs.* *Hannover.*

Second edition of a useful and profusely illustrated work frequently reprinted. The first edition was published in 1844.

1861. Schul-naturgeschichte. *3 vols. in 1. 8vo. illust.* *Hannover*

**** and **LUDWIG,** Hubert.

1883–6. Dr. Johannes Leunis Synopsis der Thierkunde. Ein Handbuch für höhere Lehranstalten, etc. Dritte Auflage, von Hubert Ludwig. *2 vols. 8vo.*
Vol. I, *pp. xiv+1,083. 955 woodcuts in the text. index.* *Hannover*, 1883.
Vol. II, *pp. xvi+1,231. 1,160 figs. in text. index.* *Hannover*, 1886.

LEVAILLANT (Le Vaillant), François [1753–1824].

1790. Travels from the Cape of Good Hope into the interior of Africa, etc. From the French by Elizabeth Helme. *2 vols. 8vo.* Vol. I, *pp. xii+395. 4 pl. (2 fold.).* Vol. II, *pp. (2)+404. 5 pl.* *London.*

An account of the author's experiences amongst the natives of Africa. There are many references to birds, afterwards used in his *Histoire naturelle des Oiseaux d'Afrique.*

[**LEVAILLANT,** F. (*contd.*)]

(**1794**) An III. Second Voyage dans l'Intérieur de l'Afrique, par le Cap de Bonne-Espérance 1783–85. *3 vols.* *Paris.*

From the Republican date it would appear from this copy that there was a French edition published in 1794, and not during 1795 (An IV). If so the *Cat. Br. Mus.* (*Nat. Hist.*) does not list it.

(**1795**) An IV. Second voyage dans l'intérieur de l'Afrique, par le cap de Bonne-Espérance, dans les années 1783, 84 et 85. *2 vols. 4to. 13 pl. Paris.*

1796. New travels into the interior parts of Africa, by the way of the Cape of Good Hope, in the years 1783, 84 and 85. Vol. I, *pp. 50+(20)+288. 5 pl. 1 map (fold.).* Vol. II, *pp. 383. 8 pl. (2 fold.).* Vol. III, *pp. 488. 9 pl.* *London.*

1797. *See* BECHSTEIN, JOHANN MATTHÄUS.

1798. Voyage dans l'intérieur de l'Afrique par le Cap de Bonne-Espérance. Nouvelle édition. *2 vols. 8vo. illust.* *Paris.*

1801–5. Histoire naturelle des perroquets. *2 vols. folio. col. pl.* *Paris.*

A famous fundamental treatise on Parrots, to which two supplements afterwards appeared. *See* BOURJOT SAINT-HILAIRE and DE SOUANCÉ. This monograph appeared irregularly in 24 *livraisons*; Nos. 1 and 2 in 1801; 4–8, 1802; 10–16, 1803; 17–20, 1804; 22–4, 1805.
The chief value of this monumental work lies in its fine hand-colored plates; there is not much to be learned, in a systematic sense, from the sparse descriptions. Briefly we find: Tome premier, An IX (1801). *pp. 8+135+2. 72 col. pl. T. of c.* Tome second, An XIII (1805). *pp. 4+112+2. 73 col. pl. T. of c.* The present copy is bound as three volumes, with Bourjot Saint-Hilaire's monograph as the third volume.

1805–8. Histoire naturelle des oiseaux d'Afrique. *6 vols. 300 col. pl.* *Paris.*

In this famous monograph the species are listed under their vulgar names, identification being assisted by the excellent hand-colored plates. Since the work was first issued (during 1796–1812) in 51 parts, it has been several times reprinted, and particular copies may be a compound of several printings, and often are incomplete.
From a scientific standpoint the treatise is not very valuable nor is it always reliable.
Zimmer (*Ayer Cat.*, p. 391) gives a good review of the six volumes. The copy in hand is a fine specimen of bookmaking, from the Clifton Library. A brief collation of it is as follows: Vol. I. 1805 (An XIII). *pp. xii+127+2. 49 col. pl. T. of c.* Vol. II. 1805 (An XIII). *pp. 148+[3]. 48 col. pl. T. of c. Pl. 65, frontispiece.* Vol. III. 1806 (An XIV). *pp. [2]+144+[3]. 53 col. pl. T. of c. Pl. 142 as front.* Vol. IV. 1805 (An XIII). *pp. 104. 49 pl. (48 col.). T. of c. Pl. 164 as front.* Vol. V. 1806 (An XIV). *pp. 124. 48 col. pl. T. of c. Pl. 210 as front.* Vol. VI. 1808. *pp. 132. 53 col. pl. T. of c. Pl. 280 as front.*

1806. Histoire naturelle des oiseaux de paradis et des rolliers, suivie de celle des toucans et des barbus. *2 vols. folio. col. illust.* *Paris.*

This magnificent work was issued in 19 *livraisons*. The *Cat. Br. Mus.* (*Nat. Hist.*) gives the dates of issue as: *Liv.* 1–2, 1801; 3–5, 1802; 6–12, 1803; 13–14, 1804; 15–19, doubtful. The volume, *Histoire Nat. des Promerops et des Guêpiers* (q.v.) was subsequently issued as *Livraisons* 20–33. Collation of the two vols. is: Vol. I. 1806. *Large folio. pp. [2]+153+2. 56 col. pl. (2 folding); 56 dup. pl. uncolored. index.* Vol. II. 1806. *large folio. pp. 1+133+4. 58 col. and 58 dup. uncol. pl. index.*

1807. Histoire naturelle des promerops, et des guêpiers; faisant suite à celle des oiseaux de paradis. *3 vols. folio. 83 col. pl.* *Paris.*

An important ornithological classic that may be regarded as supplementary to the author's *Histoire Naturelle des Oiseaux de Paradis et des Rolliers*, 1806, as it was issued in 14 numbered *livraisons* (20–33) continuation of the 19 parts assigned to the former work. Furthermore, the index of the present work is 'Du Troisième volume', and includes a list of plates of rollers, barbets, and jacamars as an 'addition aux deux premiers volumes'. Following is a collation of the three parts into which the above volume is divided: Vol. (part) I. Promerops. *pp. [3]+81. 31 col. pl.* Vol. (part) II. Guêpiers. *pp. 1+67. 21 col. pl.* Vol. (part) III. Courocous et turacous. *pp. 52+2. 31 col. pl.* (11 in supplement). *supplement. index to whole work.*

1837–8. Histoire naturelle des perroquets . . . Troisième volume (supplémentaire) pour faire suite aux deux volumes de Levaillant par. *See* SAINT-HILAIRE, A. B.

LEVENDE NATUUR. **1897**–*date*? *Amsterdam.*

LEVER, A. *See* SHAW, G., 1792–6. Museum Leverianum.

LEVERKHÜN, PAUL.

1889. Ein Flug durch die Schweiz; offener Brief an seiner Freunde. *8vo. pp. 24.* *Stettin.*

Most of the titles by this important zoologist are represented in the E.S.W. Library and other McGill collections by separately bound author's reprints. Only the more important of these *opuscula* are listed here.

1891. Fremde Eier im Nest; ein Beitrag zur Biologie der Vögel. *8vo. pp. [12]+212.* *Berlin.*

1891. Ornithologisches aus Lichtenbergs Werken. *8vo. pp. 31.*

n.d. Literarisches. *3 vols. 8vo.*

A large number of tractates on ornithologic subjects.

LEVESON, HENRY ASTBURG [1828–75].

1883. The hunting grounds of the old world, by 'the Old Shekarry' [pseud.]. *12mo. pp. xiv+498. 7 pl. T. of c.* *London.*

Of the thousands of harmless and defenceless animals slain by this 'sportsman' a few are put to some useful purpose by a description of their appearance and habits.

LEVICK, GEORGE MURRAY.

[**1915**]. Antarctic penguins; a study of their social habits. *8vo. pp. x+140. 55 pl. (figs. 1–74). T. of c. append.* *London.*

An exhaustive and interesting account of the life and habits of the Adelie Penguin (*Pygoscelis adeliae*), and other penguins.

LEWER, S. H.

1910. Canaries, hybrids and British birds in cage and aviary. *See* ROBSON, JOHN.

LEWES, GEORGE HENRY [1817–78].

1859–60. The physiology of common life. *2 vols. 12mo.* Vol. I, *pp. ix+455. 33 figs. T. of c.* Vol. II, *pp. viii+485. 36 figs. T. of c. index. Edinburgh.*

1862. Studies in animal life. *8vo. pp. 8+196. illust. pl.* *London.*

LEWIN, JOHN WILLIAM [*fl.* 1804–20].

1808. (Birds of New Holland, with their Natural History . . . painted after nature by J. W. Lewin.) Edited, with a Preface, by T. Lewin. *folio. 18 col. pl. with descriptive text.* (Wanting.)

This rare volume seems to have been the first edition of the author's first treatise on Birds of New South Wales of which numerous printings and reissues exist. The 1838 edition, edited by T. C. Eyton, is the best, with the plates most carefully (hand)-colored.

1838. A natural history of the birds of New South Wales, collected, engraved, and faithfully painted after nature. New and improved ed. *folio. pp. 36. 26 col. pl.* *London.*

The fourth edition of the early and rare *Birds of New Holland*, and quite the same as that work except that a list of vulgar and systematic names has been added for each species, and that the plates are better colored. The copy in hand was collated by Bernard Quaritch and found perfect.

LEWIN, WILLIAM [d. 1795].

[**1785**]. British birds' eggs painted from the Portland museum. *4to. pp. (1)+(97). 90 original col. drawings. index.* *London.*

Ninety original water-color drawings depicting 145 eggs. The figures agree mainly with those issued in the first edition of the author's *British Birds*, but seem to have been executed with still greater care, and must have been painted before 1786, as the contents of the Portland Museum were sold in April of that year. Probably a unique set, the title, descriptions, and index being in the handwriting of Lewin.

1789–94. The birds of Great-Britain with their eggs, accurately figured. *7 vols. folio. 323 col. pl.* *London.*

Each volume in this copy has a separate title. They form the first edition of a well-known treatise. The descriptive text is given only in English, unlike the second printing (1795) which appeared in both French and English. The hand-colored plates vary much in quality; some are crude but others are clear and well made. Briefly collated, the seven volumes exhibit: vol. I, 1789, *51 col. pl.*; vol. II, 1790, *51 col. pl.*; vol. III, 1791, *46 col. pl.*; vol. IV, 1792, *48 col. pl.*; vol. V, 1792, *45 col. pl.*; vol. VI, 1793, *45 col. pl.*; vol. VII, 1794, *37 col. pl.*

1796–1801. (The) birds of Great Britain, systematically arranged, accurately engraved and painted from nature; with descriptions, including the natural history of each bird. *8 vols. 4to. 336 col. pl. indexes.* Half-title: The Birds of Great Britain and their eggs. *London.*

The second edition of the folio printing that appeared in 1789–94 (q.v.). It has two title-pages (in French and German), and the bilingual text gives a short description of the pictured birds. As in the first edition some of the plates are crudely reproduced.
The dates on title-pages and number of plates in each volume of the copy in hand are as follows: vol. I, 1800, *42 col. pl.*; vol. II, 1796, *42 col. pl.*; vol. III, 1796, *42 col. pl.*; vol. IV, 1797, *42 col. pl.*; vol. V, 1797, *42 col. pl.*; vol. VI, 1800, *42 col. pl.*; vol. VII, 1800, *42 col. pl.*; vol. VIII, 1801, *42 col. pl.*

LEWIS, ELISHA J.

1871. The American Sportsman, etc. *8vo. pp. 510.* *Philadelphia.*

One of numerous editions, the first appearing in 1855, and the fourth in 1885.

LEWIS, GRACE ANNA.

[**1868**]. Natural history of birds. Lectures on ornithology in ten parts. *12mo. pp. 32.* Pt. 1 (all pub.?). *Philadelphia.*

The Compiler has not seen more than the (rare) first part of these lectures, written in popular style.

LEWIS, HARRISON FLINT.

1929. The natural history of the double-crested cormorant (Phalocrocorax auritus auritus [Lesson]). *8vo. pp. (4)+94. 14 figs. (2 maps). T. of c. bibliogr.* *Ottawa.*

A monograph on an interesting bird, containing much that is new of its life-history.

LEWIS, JOHN.

1911–13. The British bird book, &c. *See* KIRKMAN, F. B. B.

LEWIS, J. SPEDAN.

[**1929**]. Dispersal of [his] private collection of live birds. *4to. pp. 15.* *London.*

This Catalogue contains the number, names, and prices of the birds in the various aviaries belonging to the writer. The collection is principally made up of species from New Guinea, Borneo, East Asia, and Africa, and the prices affixed give a good indication of their market value in 1929. Both vernacular and systematic names are given.

LEWIS, MERIWETHER [1774–1809] and **CLARK,** W.

1893. History of the Expedition under the Command of Captains Lewis and Clark to the Sources of the Missouri, etc., during 1804–6. *4 vols. 8vo. illust.* *New York.*

The original account of this famous expedition, much of its energies devoted to the natural history of the parts visited, was published in Philadelphia in 1814. E. Coues wrote an introduction to the edition in hand.

LEY, WILLY.

1929. Konrad Gesner; Leben und Werk. *8vo. pp. 8+154. portr. illust.* *München.*

LEYBOLD, FEDERICO [1827–79].

1873. Escursión a las pampas arjentinas; hojas de mi diario. *8vo. pp. 107. map.* *Santiago.*

Contribution to the natural history of the Andes.

LEYDEN. Rijks Museum van Natuurlijke historie. *See also* LEIDEN.

1879–1914. Notes.

1915–*date.* Zoologische Mededeelingen.

LEYDEN UNIVERSITY. A catalogue of all the cheifest rarities in the publick anatomie hall of the University of Leyden. *See* SCHUYL, FRANCIS.

LEYDIG, FRANZ [1821–?93].

1881. Die Augenähnlichen Organe der Fische. *8vo. pp. 100. 10 pl.* *Bonn.*

LHERMINIER, F. J.

1827. Recherches sur l'appareil sternal des oiseaux. *8vo. pp. 96. 4 pl. (fold.).* *Paris.*

On the sternum of birds, extracted from the sixth volume of the Annals of the Linnaean Society of Paris. The two subclasses are Normal and Anomalous Birds, but by a misprint they both appear as *Oiseaux normaux*, corresponding respectively to carinate and ratite birds.

LHYUD, EDWARD [1660–1709].

1760. Lithophylacii Britannici ichnographia; sive, Lapidum aliorumque fossilium Britannicorum. Editio altera. *8vo. pp. 22+156. 25 pl. text-figs.* *Oxonii.*

LIBRARY OF MODERN SCIENCES. Edited by Edwin E. Stosson and others.

1926. Animals of land and sea. *See* CLARK, A. H.

(THE) LIBRARY FOR YOUNG NATURALISTS.

1909. Animals of Africa. *See* BRYDEN, H. A.

LICHTENSTEIN, ANTON AUGUST HEINRICH [1753–1816].

1838. Beitrag zur ornithologischen Fauna von Californien, nebst Bemerkungen über die Artkennzeichen der Pelicane und über einige Vögel von den Sandwich-Inseln. *folio. pp. 35. 5 col. pl.* *Berlin.*

A separately bound brochure from the Cabanis Library on certain birds of California and Hawaii. Colored plate I figures the California Condor.

1882. Lichtenstein's Catalogus Rerum Naturalium rarissimarum, 1793. Edited by F. du Cane Godman. *8vo. pp. iv+(xi)+60.* *London.*

This reprint contains only the mammals and birds. *See also* WILLUGHBY SOCIETY.
There was, also, another reprint of this excessively rare treatise, edited the same year by Tegetmeier, the Director of the Willughby Society, but as it was found to contain many errors it was withdrawn in favor of the transcript by du Cane Godman. The Compiler has, through the courtesy of Dr. Chas. W. Richmond, a copy of the Tegetmeier reissue in the original boards. It is not known to the *Cat. Br. Mus.* (*Nat. Hist.*) nor to most bibliographers.

LICHTENSTEIN, MARTIN HINRICH CARL [1780–1857].

1816. Das Zoologische Museum der Universität zu Berlin. *8vo. pp. 108. plan.* *Berlin.*

A descriptive account of the zoological collections in the Museum of Berlin University in 1816. Birds are treated on pp. 27–65. This pamphlet is from the Cabanis-Reichenow collection.

1822. Verzeichniss von Vögeln, Conchylien und Insecten, Doubletten des zoologischer Museums hiesiger Königl. Universität. *12mo. pp. 31.* *Berlin.*

A list of 477 duplicates of birds and similar lists of other animal specimens in the Berlin Museum—the whole to be sold by auction.

1827–34. Darstellung neuer . . . Säugethiere . . . 65 Arten, etc. *4to. pp. (118). atlas. 50 col. pl.* *Berlin.*

The material for these drawings (colored lithographs) was taken from the Zoological Museum in Berlin of which the (text) writer was curator, and from which he issued numerous (now valuable) sale catalogues of duplicates.

1837. Verzeichniss einer Sammlung verschiedener insbesondere neuholländischer Naturalien, welche am 6te April 1837 . . . öffentlich meist-bietend versteigert werden sollen. *8vo. pp. 24.* *Berlin.*

One of the author's famous auction catalogues (dated 1837) of duplicates in the Berlin Museum, including many birds. From the library of Prof. Cabanis.

1854. Nomenclator avium Musei Zoologici Berolinensis. Namenverzeichniss. *8vo. pp. viii+123. index.* *Berlin.*

This fundamental list of birds in the Berlin Museum, essential to the study of many species, seems to have been the joint work of Lichtenstein and Cabanis. The present copy was originally part of the Cabanis-Reichenow Library. A second copy, also in the E.S.W. Library, has appended notes by P. L. Sclater who writes on a fly-leaf: 'given to me by Lichtenstein at Berlin in August/54. P.L.S.'

LICHTHAMMER, J. W. and **others.**

[**1800**]–**17.** Teutsche Ornithologie. *See* BORKHAUSEN, M. B. and others.

LIDÉN, A. J.

1875. Bidrag till kännedomen om Skulderapparatens och vingens ben hos Svenska Roffoglar. *8vo.* (Upsala University thesis.) *Stockholm.*

LIDTH DE JEUDE, THEODOR WILLEM VAN.

1890–1907. *See* WEBER, M. C. W.

1906–30. *See* WICHMANN, C. E. A.

LIEBE, KARL THEODOR [1828–94] and **ALLIHN,** M.

1886. Kurze Erläuterung zu der Wandtafel der wichtigsten deutschen Kleinvögel. *8vo. pp. 36. map (57 figs.).* *Zeitz.*

[**1893**]. Ornithologische Schriften; gesammelt und hrsg. von C. R. Hennicke. *8vo. pp. 724. portr. index.* Supplement. *pp. 48.* *Leipzig.*

LIÉGE. Laboratoire d'Embryogénie et d'Anatomie Comparée.

1875–6. Recherches.

LI FANG [925–96] and **others.**

1812. T'ai p'ing yü lan; A classified encyclopedia, including material for animals, birds, fishes, insects, worms, etc., chüan 889–951. *26×16·2 cm.* [G.]

LILFORD, *Lord* [THOMAS LITTLETON POWYS] [1833–96].

1867. Notes on European ornithology; being four papers extracted from *The Ibis* for 1860, 1862, 1865 and 1866. *8vo. pp. 107. 2 col. pl.* *London.*

A repaged and specially bound series of articles from the Godman Library. There is no preface, but the following copy of an illuminating letter (inserted) to Osbert Salvin may well supply its place:

'Travellers' Club, April 17th, 1867.

'My dear Salvin,—I just write a line to say that the printers have stupidly made me F.R.S. in the title-page of my notes of which I sent you a copy. This may matter very little in point of fact, but it annoys me that it should appear that I assume an honour to which I have no claim.

'Very truly yours,
'Lilford.'

[**1880**]. Notes on the birds of Northamptonshire. *8vo. pp. 113. n.p.*

1885–97. Coloured figures of the birds of the British islands. [Completed by Osbert Salvin.] *7 vols. 4to. 421 col. pl. portr.* *London.*

This truly magnificent work was issued in two practically identical editions, the copy in hand being the first printing, which was supplied to subscribers in 36 parts. A brief description of every British species accompanies the beautiful chromolithograph portraits. Part 1 was issued in Oct. 1885, part 36 in Jan. 1898. A brief collation is as follows: Vol. I, *pp. xxxv+pp. 112, with portr. and 51 pl.* Vol. II, *pp. ix.+pp. 120, with 54 pl.* Vol. III, *pp. ix+pp. 130, with 66 pl.* Vol. IV, *pp. ix+pp. 154, with 65 pl.* Vol. V, *pp. ix+pp. 138, with 59 pl.* Vol. VI, *pp. ix+pp. 150, with 65 pl.* Vol. VII, *pp. ix+pp. 170, with 61 pl.*

The majority of the colored drawings are by Thorburn and Keulemans while a few are by Lodge and Foster. The work was not completed at the time of Lord Lilford's death, when it was undertaken by Osbert Salvin. An account of the dates of issue and other items of information regarding this work will be found in Hugh S. Gladstone's *Handbook to Lord Lilford's Coloured Figures of the Birds of the British Isles.*

[*c.* **1891**]. Birds of Spain. *8vo. pp. 21+(1)+(50). 1 pl. (col., 4 figs. by A. Thorburn).* [*London.*]

A fragment of an unpublished work (without title-page) set up by Porter the publisher of Princes Street, London, for Lord Lilford about 1891. In an attached letter to this book dated December 15, 1911, Porter explains that Lord Lilford abandoned the idea, and gave the eight plates, which he had had reproduced, to Col. Irby, who published them in the 2nd edition of his *Ornithology of the Straits of Gibraltar.* The colored plate is a specimen for a proposed *Manual or Handbook of British Birds* to be based on Lilford's larger work, the idea being to have about 100 to 105 plates, four figures on a plate, and text expanded from Col. Irby's *Key List of British Birds,* so as to form a small but complete reference book to carry about whilst traveling. Fifty blank pages are bound in at the end of this copy for notes. This unique copy in hand is from the Mullens Library.

1895. Notes on the birds of Northamptonshire and neighbourhood. *2 vols. 8vo.* Vol. I, *pp. xvi+352. front. 16 pl. 31 figs. T. of c.* Vol. II, *pp. viii+(2)+315. 7 pl. 13 figs. map (fold.). T. of c. index.* *London.*

1903. Lord Lilford on birds; being a collection of informal and unpublished writings; ed. by A. B. R. Trevor-Battye. *4to. pp. xviii+312. pl. 12. index.* *London.*

1917. Handbook to Lord Lilford's coloured figures of the birds of the British Islands. *See* GLADSTONE, H. S.

LILLE, D. G. *See* BR. MUS. (NAT. HIST.). 'Terra Nova', 1914–22.

LILLE INSTITUT ZOOLOGIE. *See* WIMEREUX, STATION ZOOLOGIQUE.

LILLIE, FRANK RATTRAY [1870–].

1908. The development of the chick; an introduction to embryology. *8vo. pp. xi+472. 250 figs. (few col.). append. index.* *New York.*

LILLJEBORG, WILHELM [1816–?1903].
1844–5. Observationes Zoologicae. Pts. I–II. *4to. pp. 57. 1 pl.* *London.*

1861–2. On Cetacea, etc. *8vo.* *Upsala.*
Author's separate from the Upsala *Universitets Aarskrift* of even date.

1891. Sveriges och Norges fiskarne fauna. *3 vols. 8vo. pp. 2,432. illust.* *Upsala.*
An important treatise on Swedish and Norwegian pisces, by a well recognized authority on Scandinavian fishes.

LINCOLN, FREDERICK CHARLES [1892–].
1917. The woodpeckers of Colorado. *pp. 21. illust.* Published by the Colorado Mountain Club.

1924. Instructions for banding birds. *8vo. pp. 28. 26 figs. T. of c. bibliogr.* *Washington.*

1924. Returns from banded birds, 1920 to 1923. *8vo. pp. 56. 4 pl. 1 fig. map. T. of c. index.* *Washington.*
Returns from 100 species of banded birds reported to the Biological Survey 1920–3.

1926. United States Department of Agriculture. Department circular 362. Trapping ducks for banding. *8vo. pp. 20. 18 figs. T. of c.* *Washington, D.C.*

1930. American waterfowl. *See* PHILLIPS, JOHN CHARLES.

LINCOLNSHIRE NATURAL HISTORY.
1898. Notes and Queries.

LINDERMAYER, ANTOINE.
1860. Die Vögel Griechenlands. *8vo. pp. 138. index.* *Passau.*
A supplementary study of the birds of Greece contributed to Oken's *Isis*, 1843. The synonymy, distribution, habits, &c., of Greek birds are concisely discussed. The book is rather rare.

LINDGREN, HJALMAR OSSIAN.
1876. Studier öfver däggjursägget. *8vo. pp. 2+138. pl.* (Lund Universitet thesis.) *Lund.*

LINDNER, C.
[**1914**]. (Die) Brutvögel von Naumburg, Weissenfels, Zeitz und Umgegend. *8vo. pp. 38. 2 col. pl.* *Naumberg-a-S.*

LINDSAY, B.
1895. An introduction to the study of zoology. *8vo. pp. xix+356. 124 figs. T. of c. glossary. index.* *London.*

LINDSAY, WILLIAM LAUDER [1829–80].
1880. Mind in the Lower Animals in health and disease. *2 vols. 8vo. pp. 1,004.* *New York.*

LING CH'ANG HUAN. 1927. *See* TU YA T'SIUN.

LING TI-CHIH [16th cent.].
1577. Wên hsüan chin tzû lu; A classified compendium of literary quotations on all kinds of subjects, including the animal kingdom, chüan 20 and part of chüan 21. *25×16·8 cm.* [G.]

LINK, JOH. ANDR.
[**1886–7**?]. Die Vögel der Hassberge und deren Umgebung; ein Beitrag zur Vogelfauna Frankens. *8vo. pp. 38. no t.-p. n.p.*

LINNAEAN ASSOCIATION, PENNSYLVANIA COLLEGE. *Gettysburg.*
1844–8. Literary record and journal.

LINNAEUS (LINNÉ), CAROLUS [1707–78] *also* **LINNÉ,** KARL VON.
1738. Petri Artedi . . . Ichthyologia . . . Opera posthuma. *8vo.* *Lugd. Bat.*
One of the early treatises of Linnaeus, probably written while he was living in Leyden.

1743. Caroli Linnaei Oratio . . . intra Patriam. Ejusque Elenchus Animalium per Sueciam observatorum. *8vo.* Appended is Gessner's *Dissertationes.* [O.] *Lugd. Bat.*
The Osler Library has a number of Linnean titles.

1743. An oration, etc. Tr. by Benj. Stillingfleet. Stillingfleet's *Miscellaneous Tracts.* [O.]

1746. Fauna Suecica sistens animalia Sueciae regni; quadrupedia, aves, amphibia, pisces, insecta, vermes, distributa per classes et ordines, genera et species. *12mo. pp. 25+411. pl.* *Stockholmiae.*
This is the rare first edition.

1746. C. Linnaei . . . Fauna Svecica . . . distributa per classes, etc. *8vo. pp. 26+411. 2 pl.* *Stockholmiae.*
A pirated reprint of the first edition.

1748. Linnaei . . . Systema Naturae, etc. Editio sexta. *8vo. pp. (29)+224. 8 pl.* *Stockholmiae.*

1748. C. Linnaei . . . Systema Naturae, sive regna tria naturae systematice proposita per classes, ordines, genera et species. *8vo. pp. 44+224. 8 pl.* *Lipsiae.*
This is the seventh edition of the famous classic, really a reprint of the sixth edition except that the names of the animals and minerals are given in German instead of Swedish. The epithetics alone of Linnaean literature would fill several pages. The McGill libraries appear to possess most of the essentials, including several pirated and badly printed editions of the *Systema Naturae.* In the majority of the doubtful reprintings the vertebrate have suffered less than the botanical and other sections.

1753. Museum Tessinianum, etc. *folio. pp. 6+123+9. 12 pl.* *Holmiae.*
Printed in both Latin and Swedish. The author's name is not printed on the title-page but Tessin (in the preface) asserts that the work (descriptive of the Museum contents) was that of Linnaeus.

[**1758**] **1894.** Editio decima (Systema Naturae). Reprint of Tomus I; cura Societatis Zoologicae Germanicae iterum edita. *8vo. pp. 4+824+3.* *(Holmiae) Lipsiae.*

1759. Caroli Linnæi . . . Animalium specierum in classes, ordines, genera, species, methodica dispositio. *8vo. pp. 2+253+3.* *Lugduni Batav.*
One of the numerous reprints of the tenth edition.

1760. Systema Naturae. Praefatus est J. J. Langius . . . ad editionem decimam reformatam Holmiensem. *2 vols. 8vo.* (Pirated ed.) *Halae Magdeburgicae.*
A very good pirated reprinting of vol. I, *Regnum animale*, with 830 pages and few errors. On p. 723 *Cyproea derosa* is given instead of *C. erosa*; on p. 142 *Ardea nigra* is entered as *A. igna.* Vol. II is devoted entirely to the *Regnum vegetabile.*

1766–8. Systema Naturae, etc. Editio duodecima reformata. *3 vols. 8vo. illust.* *Holmiae.*
Parts 1 and 2 of Vol. I are devoted to the *Regnum animale*, pp. 1,327+36. This is eminently a practical edition, facilitating the work of classifying species.

[**LINNAEUS**, C. (*contd.*)]

1773–6. Des Ritters C. von Linné . . . vollständige Natursystem nach der zwölften Latinischen Aufgabe. *6 pts. and supplements, in 9 vols. 8vo. illust.* *Nürnberg.*

There were several editions and abridgments of this German edition by P. L. S. Müller which to the present time is used as a valuable and dependable work of reference.

1776. A catalogue of the birds, beasts, fishes, insects, plants, etc. contained in Edwards's Natural History, in seven volumes, with their Latin names by Sir C. Linnaeus. *folio. pp. 15+1.* *London.*

Published by Linnaeus after the death of Edwards. It was probably intended to form one of the 'seven parts'. *See* EDWARDS, GEORGE *Natural History*, vol. I [1743], by Robson.

1788–93. Systema Naturae, etc. Editio decima tertia, aucta, reformata, cura J. F. Gmelin. *3 vols. 8vo. illust.* *Lipsiae.*

On the whole the most important of these fundamental works of reference. The student of vertebrate zoology will be interested in Tomus I, *Regnum animale*; pars 1, Mammalia, pp. 10+232, 1788; pars 2, Aves, pp. 233–1032; pars 3, Amphibia et Pisces, pp. 1033–1516—the last two parts both published in (1789). There was a reissue of this volume (and vol. III, 8vo, Lugduni) in 1789–96.

1800. Faunae Suecicae—Vertebrata—Pars prima, . . . quem recognovit, emendavit, et auxit Andreas Joannes Retzius. *pp. 10+362. 1 col. pl. Lipsiae.*

The library copy of this rather scarce Linnaeana is interleaved and has many MS. notes by a former owner.

1805. *See* PULTENEY, R.

1806. A general system of nature, through the three grand kingdoms of animals, vegetables, and minerals . . . translated [from the 13th ed.] from Gmelin, Fabricius, Willdenow, &c. . . . with a life of Linné . . . and a dictionary . . . of the terms . . . of natural history, by William Turton. *7 vols. 8vo.* Vol. I, *pp. vii+943. portr. 19 pl. (col.). index.* *London.*

1811. Lachesis Lapponica: or, A tour in Lapland. J. E. Smith, editor. *2 vols. 8vo.* Vol. I, pp. xvi+*366. 43 figs.* Vol. II, *pp. (2)+306. 34 figs. 2 append. index.* *London.*

Amended translation with copious notes of a Journal by Linnaeus.

1832. *See* BIOGRAPHY, by A. L. A. Fée.

1894. Caroli Linnæi Systema naturæ. Regnum animale. Editio decima, 1758, cura Societatis zoologicæ germanicæ iterum edita. *8vo. pp. 824.* *Lipsiae.*

Reprint of the tenth improved edition.

1899. An Index to the generic and trivial names of Animals . . . in the 10th and 12th editions of . . . the Systema Naturae. *8vo. pp. 8+108.* *Manchester.*

An indispensable contribution to Linnaean literature, by C. D. Sherborn, the well-known bibliographer.

1905–6. Skrifter, utgifna af Kongl. Svenska Vetenskapsakademien. *3 vols. 4to.* *Upsala.*

1907. C. von Linnés betydelse Såsom naturforskare och läkare, etc. *8vo.* *Stockholm.*

An 'appreciation' of Linnaeus as naturalist, issued by the Kongl. Svenska Vetenskapsakademien on the bi-centenary of the great man's birthday. E. Lönnberg and C. Aurivillius wrote the tribute to Linnaeus as zoologist in an essay of 80 pages.

******** and **LÖNNBERG**, EINAR.

1907. Caroli Linnæi . . . Methodus avium sveticarum, utgifven af Einar Lönnberg. *8vo. pp. (4)+96+56. 1 pl. (fold.).* *Uppsala.*

A transcript of an unpublished manuscript by Linnaeus on the birds of Sweden, entitled, 'Methodus Avium Sveticarum', with notes by Lönnberg. The original MS. is said to have been in the form of a pocket notebook, interleaved with loose sheets containing matter of questionable date; the notebook carried a title-page bearing the date January 1, 1731.

LINNEA. Tidskrift for de unga. 1897–1905. (Continued as Linnean Magazine.) *Minneapolis.*

LINNEAN BULLETIN. 1884. *Lancaster, Pa.*

LINNEAN MAGAZINE. 1905–8. (Continues Linnea.) *Minneapolis.*

LINNEAN SOCIETY OF LONDON.

1855–*date*. Journal (Zoology).

1838–*date*. Proceedings.

1875–*date*. Transactions (Zoology).

LINNEAN SOCIETY OF NEW SOUTH WALES. *Sydney.*

1882?–*date*. Abstract of Proceedings.

1875–*date*. Proceedings.

LINNEAN SOCIETY OF NEW YORK.

1888–*date*. Abstract of Proceedings.

1882–4. Transactions (all pub.).

LINNESKA SAMFUNDETS HANDLINGAR. 1832. *Stockholm.*

LIOUVILLE, J. *See* FRANCE. DEUXIÈME EXPÉDITION ANTARCTIQUE FRANÇAISE (1908–10).

LISBON. Academia das Sciencias. *See* ACADEMIA DAS SCIENCIAS DE LISBÔA.

LISBON. *See* JORNAL DAS SCIENCIAS . . . NATURAES.

LISTE DER AUTOREN ZOOLOGISCHER ARTBEGRIFFE, etc. 1888. *See* ANONYMOUS.

LISTER, MARTIN [?1638–1712].

1678. Historiae Animalium Angliae tres tractatus, etc. *4to. illust.* *London.*

Lister's first work, for a description of which *see* S. Wood, Martin Lister, Zoologist and Physician, *Annals of Medical History*, Jan. 1929. *See* BIBLIOTHECA OSLERIANA, 3246.

LIST OF BRITISH BIRDS.

n.d. (?Bowdler Sharpe.) *See* ANONYMOUS.

LITTLE, MALCOLM EDGEWORTH and **KEMPTON**, R. T.

1929. A laboratory manual for comparative anatomy. *4to. pp. 19+286. pl.* *New York.*

LITTLEJOHNS, R. T. and **LAWRENCE**, S. A.

1921. Bird Homes in the Bush. *Sydney.*

n.d. Birds of our bush. *8vo. pp. 208. 67 photopl. index.* *Melbourne.*

A popular account of interesting Australian birds, illustrated with charming photographs taken by the authors. Dr. J. A. Leach has written for it a relevant introduction.

LITTLE NATURE LIBRARY.

1922. Birds worth knowing. *See* DOUBLEDAY, *Mrs.* NELLIE.

LITTLER, FRANK MERVYN.
1910. A handbook of the birds of Tasmania and its dependencies. *8vo. pp. 18+242. 42 pl. append. indexes.* *Launceston, Tasmania.*
Describes (and depicts many of the) 214 species. The photoplates are unusually clear and good. The permanent list of birds numbers about 114.

LIVERPOOL BIOLOGICAL SOCIETY.
1886–*date.* Proceedings and Transactions.

LIVERPOOL MUSEUMS. (Under City control.)
1898–1901. Bulletin.

LIVERPOOL NATURAL HISTORY SOCIETY.
1840. Report.

LIVERPOOL NATURALISTS' FIELD CLUB. *Liverpool.*
1860–*date.* Proceedings.

LIVERPOOL NATURALISTS' JOURNAL.
1866–8. (All pub.)

LIVERPOOL UNIVERSITY. Department of Oceanography.
1886–*date.* Annual Report.

1899–*date.* Memoirs.

LIVERPOOL UNIVERSITY. Lancashire Sea-Fisheries Laboratory.
1892–*date.* Report. (Wanting.)

LIVING ANIMALS OF THE WORLD, etc.
?1927. ANONYMOUS.

LIVINGSTONE, GEORGE.
1868. British birds, their haunts and habits. *8vo. pp. 4+282. illust.* *London.*
Interesting scientific observations of various British species. The identity of the anonymous writer is established by an inserted letter in a copy of the work in the W. H. Mullens Library. The book is quite rare, a small edition only having been privately printed.

LLOYD, H. E.
1824. Travels in Brazil in the years 1817–20. *See* SPIX, JOHANN B.

LLOYD, HOYES.
n.d. Canada's feathered friends. *8vo. pp. 6.* *[Ottawa.]*
A pamphlet published by the Dominion Parks Branch, Department of the Interior, giving the names and usefulness of the more common Canadian birds.

[**1920?**]. Protection of bird neighbours. *8vo. pp. 8* *[Ottawa.]*

LLOYD, LLEWELYN [1792–1876].
1854. Scandinavian adventures. With some account of the northern fauna. *2 vols. 8vo.* Vol. I, *pp. xxi+512. front. (col.). 6 pl. (col., 1 map). 67 figs. T. of c. append.* Vol. II, *pp. xi+546. front. (col.). 5 pl. (col.). 35 figs. T. of c. index.* *London.*

1867. The game birds and wild fowl of Sweden and Norway; together with an account of the seals and salt-water fishes of those countries. 1st ed. *8vo. pp. xx+599. front. (col.). 51 pl. (47 col.). 74 figs. 1 map (fold.). T. of c. index.* *London.*
A popular account of the subject, including detailed notes on the methods of hunting and capturing the various animals described. The greater part of the book, pp. 1–371, consists of a description of the birds, with no less than 33 of the colored and 3 of the plain plates being devoted to them also. The colored plates are chromolithographs by M. Körner, W. von Wright, and J. Wolf. A second edition appeared later in the same year.

1873. *See* ANDERSSON, CHARLES JOHN.

LOCHE, VICTOR [1806–63].
1844–67. Exploration scientifique de l'Algérie, etc. Oiseaux. *See* ALGERIA.

[**1858**]. Catalogue des Mammifères et des Oiseaux observés en Algérie, etc. *8vo. pp. 11+158. Paris.*
This work is based on observations made during the French governmental *Exploration scientifique de l'Algérie*, 1840–42, and is cited in Prince Bonaparte's *Conspectus Avium.*

1867. Histoire naturelle des Oiseaux—Mammifères. *See* EXPLORATION SCIENTIFIQUE DE L'ALGÉRIE (1858).

LOCHNER VON HUMMELSTEIN, JOHANN HEINRICH.
1716. Rariora Musei Besleriani quae olim Basilius et M. R. Besleri collegerunt. *folio. pp. 24+112. 41 pl.* *Norimbergae.*

LOCKINGTON, WILLIAM NEALE. *See* KINGSLEY, J. S., *ed.*, 1885.

LOCKWOOD, SAMUEL. *See* KINGSLEY, J. S., *ed.*, 1885.

LOCY, WILLIAM A.
1915. Biology and its Makers. 3rd ed. *8vo. pp. 468. 123 cuts. index.* *New York.*
A very useful treatise on the subject. The first edition was issued in 1908, the second in 1915.

[**1925**]. The Growth of Biology. Zoölogy from Cuvier. *8vo. pp. 481. 140 illust. index.* *N.Y.*
A valuable aid to an understanding of the development of the science. The writer also considers other departments of biology.

LODGE, REGINALD B.
1903. Pictures of bird life. *8vo. pp. 376. 7 pl. (col.). 231 figs. index.* *London.*
An interesting account of methods and experiences in photography while hunting birds with the camera.

[**1908**]. Bird-hunting through wild Europe [with a camera]. *8vo. pp. 333. 94 pl. (121 figs.). T. of c. append. index.* *London.*

LOEB, JACQUES [1859–1924].
1908. Ueber den chemischen Charakter des Befructungsvorganges. *Leipzig.*

1918. Forced movements, tropisms, and animal conduct. *8vo. pp. 209. illust.* *Philadelphia and London.*
One of this famous experimenter's treatises on anima lhabits and behavior.

LOEWIS, OSKAR VON.
1895. Unsere Baltische Singvögel. *8vo. pp. 299.* *Reval.*
A very good account of North European songsters, especially those of Finland and Kurland.

LOISEL, GUSTAVE [1867–].
[**1907**]. Rapport sur une Mission . . . les jardins d'Allemagne, du Royaume-uni, etc. *49 pl.*

LOMER, GERHARD RICHARD and **MACKAY,** MARGARET S.

1924. Catalogue of scientific periodicals in Canadian libraries. *4to.* (McGill University Publications.) *Montreal.*

A most helpful list for librarians, bibliographers, and advanced students.

LONDON, EDINBURGH AND DUBLIN PHILOSOPHICAL MAGAZINE AND JOURNAL OF SCIENCE. *London.*

1798–1826. Series 1.

1827–32. ,, 2.

1833–50. ,, 3.

1851–75. ,, 4.

1876–1900. ,, 5.

1901–25. ,, 6.

1926–*date*. ,, 7.

LONDON MEDICAL AND PHYSICAL JOURNAL. (Early title **Med. and Phys. Journal.**) **1799–1833.**

LONDON NATURALIST. 1914–30.

This periodical publishes many notes and papers on the bird life and lore within the Metropolitan area. It is the organ of the London Natural History Society. From 1914–20 it published the *Transactions* of the Society.

LONDON SCIENCE CLASS-BOOKS.

1903. Zoology of the vertebrate animals. *See* MACALISTER, ALEXANDER.

LONDON ZOOLOGICAL SOCIETY.

1872–5. Revised list of the vertebrated animals now or lately living in the gardens of the Zoological society of London, [and supplement 1872–74]. *2 vols. 8vo.* Vol. I, *pp. iv+399. 30 figs. T. of c. index.* Vol. II, *pp. (4)+54. T. of c. index. London.*

1896. List of the vertebrated animals now or lately living in the gardens of the Zoological society of London. 9th ed. *8vo. pp. xvi+724. 70 figs. T. of c. index. London.*

A nearly complete catalogue of all the species of Vertebrates of which specimens have been exhibited in the Society's Menagerie during the past 34 years (1862–96). The portion relating to the class Aves will be found on pp. 216–551, with 26 illustrations, figs. Nos. 45–70. In the 1st edition (1862) the number of birds recorded was 409, in the present one it has risen to 1,676.

1902–12. Index zoologicus. An alphabetical list of names of genera and subgenera proposed for use in zoology as recorded in the 'Zoological record' 1880–1900, together with other names not included in the 'Nomenclator zoologicus' of S. H. Scudder. Comp. (for the Zoological society of London) by Charles Owen Waterhouse, and ed. by David Sharp. *8vo. pp. 12+420. London.*

1929. List of the vertebrated animals exhibited in the gardens of the Zoological society of London, 1828–1927. Centenary ed. [ed. by P. C. Mitchell]. *4 vols. 8vo. London.*

CONTENTS. Vol. 1. Mammals, by Maj. S. S. Fowler. 2. Birds, by G. C. Low. 3. Reptiles, by Maj. S. S. Fowler, Amphibia by M. A. Smith, Fishes by E. G. Boulenger. 4. Centenary volume.

A very useful catalogue (with notes) of the living vertebrates in the London Zoo.

n.d. The animals, etc., in the Zoological gardens; photographs from life by Frank Haes. *8 pts. in 1 portfolio. photo. London.*

n.d. List of abbreviations with titles of journals containing papers dealing with matters of zoological importance. *See* ANONYMOUS.

LONG, JOSEPH W.

1874. American wild-fowl shooting. Describing the haunts, habits, and methods of shooting wild fowl, particularly those of the western states of America. *8vo. pp. xiv+330. 3 pl. 22 figs. T. of c. New York.*

One of those books describing effective methods of slaughtering beautiful wild birds that the Compiler hopes will soon be as much out of date as the flintlock once used for hunting them.

LONG, WILLIAM JOSEPH [1867–].

1901. Fowls of the Air. *8vo. Boston.*

1919. How animals talk, and other pleasant studies of birds and beasts. *8vo. pp. [6]+302. illust. pl. New York.*

LONGCHAMPS, MICHEL EDMOND DE SELYS. *See* SELYS-LONGCHAMPS.

LONGHI, PAOLO.

1898. Sopra i resti di un cranio di Champsodelphis; fossile scoperto nella molassa miocenia del Bellunese. *8vo. pp. [6]+60. pl. Padova.*

LONG ISLAND NATURAL HISTORY CLUB. *See* WARBLER.

LONGOLIUS, GYBERTUS, *of Utrecht* [1507–43].

1544. Dialogus de avibus, et earum nominibus Graecis, Latinis, et Germanicis [etc.]; [ed. by William Turner]. *12mo. pp. [112]. Coloniae, Io. Gymnicus.*

The original of one of the earliest and rarest books on birds. It is a posthumous, Cologne publication, edited by William Turner, the author of another rare work, *Avium praecipuarum historia*, 1544, and friend of Gilbert Longolius. The present volume is complete, in fine condition, and has been recently bound by Riviere. There is no note of this work in the *Cat. Br. Mus.* (*Nat. Hist.*), nor in the collection of the Zoological Society. *See also* TURNER, WILLIAM.

LÖNNBERG, AXEL JOHAN EINAR [1865–].

1905. Die Vögel der Schwedischen Südpolar-Expedition, 1901–03. *4to. pp. 9. Stockholm.*

Birds of the Swedish Antarctic Expedition. Most of the collection was unfortunately lost with the wreck of the vessel. Covers bound in.

1905. Short notes on a collection of birds from Tianshan. *8vo. pp. 23. 1 pl. (col.). Uppsala.*

1905. *See* NORDENSKJÖLD, N. O. G.

1906. Contributions to the fauna of South Georgia. 1. Taxonomic and biological notes on vertebrates. *folio. pp. 104. pl. Uppsala.*

1907. Caroli Linnaei Methodus avium Sveticarum. *See also* LINNAEUS, C.

1909. Notes on birds collected in southern Transbaicalia and northern Mongolia. *8vo. pp. 42. 9 figs. Uppsala.*

1910. *See* SJÖSTEDT, B. Y.

1911. Birds collected by the Swedish Zoological expedition to British East Africa. *4to. pp. 113. 5 pl. (col.). Uppsala.*

1917. Mammals collected in Central Africa. *4to. 12 pl.* *Stockholm.*

1917–29. Svenska fåglar, efter naturen och på sten ritade af M. & W. von Wright. *105 pts. in 6 portfolios. See* WRIGHT, M. and W. *Stockholm.*

1920–4. The natural history of Juan Fernandez and Easter Island. *See* SKOTTSBERG, CARL J. F.

LOOMIS, LEVERETT MILLS [1857–].
1891. An historical sketch of South Carolinian ornithology. *pp. 7.* Pub. by the Author. *N.Y.*
A review of the chief publications on the subject.

1918. A Review of the Albatrosses, Petrels, and Diving Petrels. *4to. pp. 187. 17 pl. (2 maps fold.). T. of c. index.* Expedition of the California Academy of Sciences to the Galapagos Islands, 1905–1906. *San Francisco.*
Author's reprint of *Proc. Cal. Acad. Sc.*, April 22, 1918. A carefully prepared treatise divided into six parts: (1) Historical, (2) Geographic distribution, (3) Migration, (4) Variation, (5) Classification and Nomenclature, (6) Results of the Study. The last part comprises nearly two-thirds of the entire report treating of the 44 species obtained by the expedition, and going into great detail regarding variation in size and coloration, migration and habits, &c., of these puzzling birds of the high seas.

LOON, THE. Devoted to Ornithology and Oology. Editor: Thad. Surber. White Sulphur Springs, Virginia.
1889. Monthly. *8vo.* Each number has table of contents.
F. Burns (73) furnishes the following notes: Vol. I. 1889. Nos. 1–10, Jan.–Oct. *pp. 78* (all issued).
This periodical belonged to the better class of minor ornithological journals as evidenced by the character of its contributions and the scientific status of its contributors. Among the latter were F. H. Andrews, W. L. Kells, Chas. T. Hepburn, C. W. Swallow, E. B. Webster, and J. Claire Wood.

LOOS, KURT.
1910. Der Schwarzspecht; sein Leben und seine Beziehungen zum Forsthaushalt. *8vo. pp. viii+145. 21 pl. T. of c.* *Wien.*
The family life of the Great Black Woodpecker, *Picus martius L.*, the European prototype of the North American Pileated Woodpecker, *P. pileatus.*

n.d. Der uhu in Böhmen; nebst einigen Notizen über die Verbreitung dieser Eule in einigen andern Ländern. *4to. pp. 70+(3). 5 pl. 3 maps (fold., 2 col.). T. of c.* *Saaz.*
Habits and distribution of the Eagle-Owl, *Bubo maximus*, in Bohemia, with illustrations and sections of the disgorged pellets.

LORD, CLIVE ERROL and **SCOTT,** H. H.
1924. A synopsis of the vertebrate animals of Tasmania. *8vo. pp. (8)+340. front. 41 pl. 117 figs. glossary. 2 indexes.* *Hobart.*
A preliminary compilation of the Tasmanian vertebrates.

LORD, JOHN KEAST [1818–72].
1866. The naturalist in Vancouver Island and British Columbia. *2 vols. 8vo.* Vol. I, *pp. xiv+358. 6 pl. 1 fig. T. of c.* Vol. II, *pp. vii+375. 3 pl. 1 fig. T. of c. append.* *London.*

LORD, THOMAS [*fl.* 1796].
1791. Lord's entire new system of Ornithology. *folio. pp. 6+114. 111 col. pl.* *London.*
An extremely scarce but scientifically unreliable work. It was issued in parts of three sheets and plates each. The copy in hand lacks pl. 83, 113–14, but is otherwise complete. It is from the Mullens Library with an inserted letter and two of the original colored wrappers bound in.

LORD, WILLIAM ROGERS.
1902. A first book upon the birds of Oregon and Washington; a pocket guide and pupils' assistant in the study of most of the land birds and a few of the water birds of these states. *12mo. pp. 304+4. 20 text-figs. index.* *Portland, Ore.*
Second edition of a popular work. The systematic names of bird species are not mentioned.

LORD DERBY NATURAL HISTORY MUSEUM, LIVERPOOL.
1920. Handbook and guide to the British birds on exhibition in the Lord Derby natural history museum, Liverpool. [By J. A. Clubb.] 2nd ed.

LOREK, C. G.
1834–7. Fauna prussica; Abbildungen der Säugethiere, Vögel, Amphibien und Fische Preussens. *8vo. pp. 4+16. 130 pl. index.* *Königsberg.*
A rare and important atlas of North German vertebrate fauna.

LORENZ, THEODOR.
1887. Beitrag zur Kentniss der ornithologischen Fauna an der Nordseite des Kaukasus. *4to. pp. xii+62. 4 col. pl. 2 text-figs.* *Moscow.*
A condensed description of the avifauna of the northern Caucasus. The copy in hand was presented to P. L. Sclater by the writer with his autograph.

1910–11. Die Birkhühner Russlands deren Bastarde, Ausartungen und Varietäten. *atlas folio. pp. 4+10. wrapper title, advt., dedication, title. 24 hand-col. photogr. pl. 3 figs. in text.* *Vienna.*
Beautifully illustrated (unfinished) atlas on *Tetrao tetrax*, the Russian Black Cock. It was completed by Kohts and published after the death of the author. The wrapper is undated and marked 'Lieferung I'. The advt. promises 24 colored plates and 50 colored figures.

LORENZI, LAURENTIO (Lorenzo).
1767–73. Ornithologia Methodice Digesta, atque Iconibus aeneis ad vivum illuminatis ornata. *See also* MANETTI, XAVERIO.

LORENZINI, STEFANO.
1678. Osservazioni intorno alle torpedini. *8vo. pp. 6+136.* *Firenze.*
A rather rare work on the torpedoes.

LORQUINIA. (**Lorquin Nat. Hist. Club.**)
1916–19. *2 vols.* (all pub.).

LORT-PHILLIPS, E.
1888. The unknown horn of Africa . . . The drawings of the fauna . . . from specimens chiefly collected by E. Lort-Phillips. *See* JAMES, F. L.

LOS ANGELES, CALIFORNIA. Department of Natural Sciences.
1915–18? Miscellaneous Publications.

LOS ANGELES ZOOLOGICAL SOCIETY.
1912. Proceedings.

LOTOS. *Prague.* **1850–*date.***

LOTSY, JOHANNES PAULUS [1867–] and **GODDIJN,** W. A.
1928. Voyages of exploration to judge of the bearing of hybridization upon evolution. 1. South Africa. *2 vols. 8vo. illust. pl.* *The Hague.*

LOTTINGER, A. J.

(**1795**) An 3. Histoire du coucou d'Europe. *pp. 36.* *Strasbourg.*

This is an excessively rare but interesting tractate, mentioned in the *Carus Bibliotheca* but not found in the *Cat. Br. Mus. (Nat. Hist.).*

LOUISIANA SOCIETY OF NATURALISTS, NEW ORLEANS.

1897–9. Proceedings. (All pub.)

LOVASSY, A. VON. *See* BUDAPEST, 1900.

LOVELL, ROBERT [1630?–90].

1661. Πανζωορυκτολόγια. Sive Panzoologico-mineralogia. *8vo. pp. 96+519+152.* *Oxford.*

The *History of Minerals* has a separate title.
Lovell or Lovel, naturalist and physician, published his works while still a student at Oxford. [O. 3274]

LOW, ALBERT PETER. *See* CANADA. REPORT, etc. 1906.

LOW, DAVID [1786–1859].

1842. The breeds of the domestic animals of the British Islands. *2 vols. folio. illust.* *London.*

The descriptions are preceded by a full history of the wild and domesticated races so far as known. The two most remarkable circumstances in the history of the Horse are the character of the British race-horse and the escape of the horse from human control in Spanish America.

LOW, GEORGE [1747–95].

1813. Fauna Orcadensis; or, The natural history of the quadrupeds, birds, reptiles and fishes of Orkney and Shetland. *4to. pp. 20+230.* *Edinburgh.*

The author was introduced to Thomas Pennant by Sir Joseph Banks, and this sketch of the Natural History of the Orkney Islands was at first designed for Pennant's information. He did for Orkney what Gilbert White did for Selborne.

LOW, GEORGE CARMICHAEL [1872–].

1924. The literature of the *Charadriiformes* from 1894–1924, with a classification of the order, and lists of the genera, species and subspecies. *8vo. pp. 11+220.* *London.*

LOWE, PERCY ROYCROFT [1870–].

1911. A naturalist on desert islands. *8vo. pp. xii +300. front. 31 pl. 2 maps (col., 1 fold.). 3 figs. T. of c. index.* *London.*

The experiences of a naturalist during six winter cruises among little-known islands of the Caribbean Sea and the Gulf of Mexico.

[**1913**]. Our common sea-birds: cormorants, terns, gulls, skuas, petrels and auks. *4to. pp. xvi+310. 238 pl. (1 map). T. of c. index.* *London.*

1928. Studies and observations bearing on the phylogeny of the ostrich and its allies. *8vo. pp. 63. illust. pl.* *London.*

Author's reprint.

LOWE, RICHARD THOMAS [1802–74].

1843–60. A history of the fishes of Madeira. *5 pts. 8vo. pp. 16+196. 17 col. pl.* *London.*

This work was issued in parts, only five of which were published. Plates 17–19, 21–24, 26, and 27 were never issued in the colored state, the original drawings having been lost.

LÖWIS, OSCAR VON.

1895. Unsere Baltische Singvögel. *8vo. pp. 2+ 299. index.* *Reval.*

LOYD, LEWIS RICHARD WILLIAM [1882–].

1925. Lundy; its history and natural history. *8vo. pp. xii+248. 19 pl. 1 map (fold.). 8 figs. T. of c. index.* *London.*

[? **1926**]. Bird facts and fallacies. *8vo. pp. 246. T. of c.* *London.*

Interesting and useful popular history of ancient and medieval ornithology, mostly of British birds.

1929. The birds of south-east Devon. *8vo. pp. 176. 5 pl. 1 map (fold.). T. of c. index.* *London.*

LUBBOCK, *Sir* JOHN, *Baron* AVEBURY [1834–1913].

1879. Scientific lectures. *8vo. pp. x+187. 54 figs. T. of c.* *London.*

1892. The beauties of nature and the wonders of the world we live in. *12mo. pp. xiv+429. front. 11 pl. 55 figs. T. of c.* *New York.*

The present edition of this popular work is the first reprint (American) of the original publication in London of the same year; others, almost identical in text and illustrations and dated 1893, 1895, and 1905, are in the McGill libraries.

1908. On the senses, instincts, and intelligence of animals. *8vo. pp. xxix+292. 118 figs. T. of c. index.* *New York.*

Vol. LXV of the International Scientific Series.

LUBBOCK, RICHARD [1759–1808].

1845. Observations on the Fauna of Norfolk, etc. *8vo. pp. 8+156. map.* *Norwich.*

1879. Observations on the Fauna of Norfolk, and more particularly on the district of the Broads. *8vo. pp. xxxvi+239. front. (map fold.). 2 pl. T. of c. append.* *Norwich.*

The fame of Richard Lubbock as a naturalist rests on this work, the first edition of which appeared in 1845, reissued in 1848 and 1860, with a new edition in 1879 as above. There are appendices by Alfred Newton, Thos. Southwell, and Henry Stevenson.

LÜBECK. *See* NATURHISTORISCHES MUSEUM.

LÜBEN, AUGUST [1804–74].

1848. Vollständige Naturgesch. d. Säugetiere. *38 pl.* *Eilenburg.*

1854. Leitfaden zu einem methodischen Unterricht in der Naturgeschichte. 5th ed. *3 vols. 8vo. illust.* *Leipzig.*

LUCANUS, FRIEDRICH KARL HERMANN VON [1869–].

1904. Die Höhe des Vogelzuges und seine Richtung zum Winde auf Grund aeronautischer Beobachtungen. *pp. 24.* (Repaged separate from the *Proceedings of the Fifth Internat. Zoological Congress,* Berlin, 1901.) *Neudamm.*

1922. Die Rätsel des Vogelzuges; ihre Lösung auf experimentellen Wege durch Aeronautik, Aviatik und Vogelberingung. *8vo. pp. viii+226. 1 pl. 4 figs. (maps). T. of c. 2 indexes.* *Langensalza.*

A detailed study of bird-migration and its problems.

1923. Die Rätsel des Vogelzuges. 2nd ed. *Langensalza.*

[**1925**]. Das leben der vögel. *8vo. pp. 428. 19 pl. (col., 3 of eggs). 136 figs. T. of c. index.* *Berlin.*

A general study of birds, their structure, development, breeding, song, flight, and distribution.

LUCAS, Arthur Henry Shakspere [1853–].
1896. *See* horn, w. a., Report on the . . . Scientific Expedition.

****** and LE SOUËF,** W. H. D.
1909. The Animals of Australia, etc. *8vo.* *Christchurch.*

Mostly devoted to the mammals and written in semi-popular but strictly scientific style.

****** and LE SOUËF,** W. H. D.
1911. The birds of Australia. *8vo. pp. 11+489. 6 col. pl. text-figs. index.* *Melbourne.*

On the whole the best handbook for popular use yet published. The textual cuts are better than the average and greatly assist the identification of species. Many of them are from the *Emu*.

1914. *See* br. assoc. ad. science, 1914.

LUCAS, Edward Verrall [1868–].
1928. The More I see of Men. 6th ed. *12mo. pp. 8+129. pl.* *London.*

A charming little collection of this popular author's writings, in prose and verse, dealing with dogs. He explains his title by the quotation:—

'The more', said one, 'of men I see,
The more do dogs appeal to me.'

LUCAS, Frederic Augustus [1852–].
1891. Notes on the preparation of rough skeletons. *8vo. pp. 11. illust.* (*Bulletin of the U.S. National Museum*, no. 39.) *Washington.*

1895. The tongues of woodpeckers. *8vo. pp. 35–44. 3 pl.* *Washington.*

Author's separate. The evidence favors the view that modifications of the tongue are directly related to the character of the food and are not of value for classification.

1901. Animals of the Past. *8vo. pp. xx+258. 16 pl. text illust.* *New York.*

Mostly concerned with prehistoric fauna of North America.

1903. Animals before Man in North America. *N.Y.*

A work worthy of the attention of all students of prehistoric zoology.

1909. The anatomy of birds. *See* knowlton, f. h., Birds of the world.

LUCAS, Joseph.
1899. The pleasures of a pigeon-fancier. 2nd ed. For private circulation only. *8vo. pp. (8)+119. 7 pl. (2 col.). 7 figs. T. of c. index.* *London.*

LUCERNE. Naturforschende Gesellschaft.
1895–*date.* Mitteilungen.

LUCKNOW. North-Western provinces and Oudh provincial Museum.
1890. Catalogue of the birds. *See* reid, george.

LUCRETIUS CARUS, Titus [95?–55 b.c.].
1495. De rerum natura. *4to.* Hain—C. 10283. Proctor 5271. [O. 1.] *Venice.*

1713. De Rerum Natura libri sex. *12mo.* [O. 2.] *London.*

1761. Di Tito Lucrezio Caro Della Natura delle cose, Libri VI. Tradotti da Alessandro Marchetti in Londra. *32mo. pp. 24+222+5. portr. vignetted title.* [*London.*]

A translation into corresponding Italian metre of the poet's original Latin hexameters. If one cannot concede the claim of some admirers of Lucretius that he should be regarded as a conscious proponent of the theory of evolution yet he certainly made a very good guess at it, and may well be classed as a forerunner, albeit the oldest, of Darwinism. Let us say that Democritus, Epicurus, and (especially) Lucretius dreamed about it but that Charles Darwin established the theory of evolution on a firm foundation of evidence and demonstration. Osler rates Lucretius high as a philosopher who versified startling conjectures now accepted as reasonable concepts of modern science. He believes, for example (*Bib. Osler.*, p. 1), that 'the lines in Book V, 925–1010 [ed. 1495, Venice] could be transferred to any modern text-book of anthropology'.

1773. De Rerum Natura libri sex. *8vo.* *Baskerville Press, Birmingham.*

1796–7. De rerum natura libros sex, ad exemplarium MSS. fidem recensitos, longe emendatiores reddidit, commentariis perpetuis illustravit, indicibus instruxit et cum animadversionibus Ricardi Bentleii, non ante vulgatis, aliorum subinde miscuit Gilbertus Wakefield. *3 vols. folio. portr.* *London.*

1813. Tito Lucrezio Caro della Natura delle cose libri sei tradotti da Alessandro Marchetti. *8vo. pp. 37+452.* *Milano.*

An Italian translation into corresponding verse of the author's age-long attempt to get to the bottom of the real causes of natural phenomena—a problem frequently attacked by ancient and medieval philosophers. Carus gives but little attention to the mysteries of animal life but does say something about them (*vide* p. 354) now and then.

1850. The same. Carolus Lachmannus recensuit et emendavit. *8vo.* [O. 3.] *Berol.*

1866. The same. With notes by H. A. J. Munro. 2nd ed. *2 vols. 8vo.* [O. 4.] *Camb.*

1910. The same. Tr. by Cyril Bailey. *12mo.* [O. 7.] *Oxford.*

[**1916**]. Of the Nature of Things. Metrical tr. by Wm. E. Leonard. *8vo.* [O. 8.] *Lond.*

1918. The poetry of Lucretius. By C. H. Herford. *8vo.* [O. 9.] *Manchester.*

This famous poem on natural history has been popular for twenty centuries and the foregoing titles represent but a few of the numerous editions of it that have appeared in many languages. Most of the volumes in hand are from the Osler Library.

LUDWIG, Alfred.
1894. Das Birkwild dessen Naturgeschichte, Jagd und Hege. 2nd ed. *4to. pp. 15+254.* *Wien.*

LUDWIG, H. *See* leunis, j., 1883–6.

LUIGI, *Duke of the Abruzzi* [1873–].
1909. Ruwenzori. *See* filippi, f. de.

LUMHOLTZ, Karl Sofus [Loftus] [1851–].
1889. Among cannibals; an account of four years' travels in Australia and of camp life with the aborigines of Queensland. *8vo. pp. xx+395. 28 pl. 2 maps (col. fold.). 97 figs. T. of c. append. index.* *London.*

LUND (SWEDEN), UNIVERSITET.
1864–1904. Acta.
1905–*date.* Afdelning 2.

LUNDQVIST, G.
1927. Bodenablagerungen und Entwicklungstypen der Seen. *8vo. pp. 4+124. tab.* *Stuttgart.*

LÜNEBURG. Naturwissenschaft. Verein für das Fürstentum Lüneburg.
1855. Denkschriften 1 (all pub.).
1852–64. Jahresbericht (incl. Bericht) 1–13 (all pub.).
1865–*date.* Jahreshefte.

LÜTKEN, CHRISTIAN FREDERICK [1827–1901].

1875. A revised catalogue of the Fishes of Greenland. *8vo.* *London.*

Part VII of the British Admiralty *Manual of the Natural History of Greenland.*

1883–1930. *See* DENMARK. INGOLF-EXPEDITION.

LUTZ, E.

1926. Der Pfahlbauer, etc. *8vo.* *Stuttgart.*

Furnishing, among other information, an account of the animals of and about the lake-dwellers.

LUTZ, K. G.

1899. Wanderungen in Begleitung eines Naturkundigen. *25 col. pl.* *Stuttgart.*

[**1900**]. Der Vogelfreund; unsere einheimischen Vögel in Wort und Bild. *3 vols. 24mo.* Vol. I, *pp. iv+160. 40 pl. (col.). 4 figs. index.* Vol. II, *pp. (2)+154. 40 pl. (col.). 3 figs. index.* Vol. III, *pp. (4)+203. 41 pl. (col.). 11 figs. index.* *Stuttgart.*

A very complete guide to the birds of Germany, illustrated by numerous excellent colored plates. German and Linnaean names are given in all cases.

n.d. Lessons in Natural History. *32 pl.* *N.Y.*

An American translation.

n.d. Die Raubvögel Deutschlands, nebst einem Anhang über Vogelschutz. *8vo. pp. 8+171. 16 col. pl. 12 figs. in text. T. of c.* *Stuttgart.*

A popular account, systematically arranged and with all the local names of the birds of prey commonly found in Germany.

LYCEUM OF NATURAL HISTORY. *See* NEW YORK ACADEMY OF SCIENCES.

LYDEKKER, RICHARD [1849–1915].

1885–7. The Sheep and its Cousins. *8vo.* *London.*

One of the earliest brochures of this famous naturalist.

1885–7. *See* BR. MUS. CATALOGUE.

1888–90. Catalogue of the Fossil Reptilia and Amphibia in the British Museum. *4 pts. 8vo.* *London.*

One of the many invaluable series issued by the Trustees.

1889. *See* NICHOLSON, H. A. and LYDEKKER, R.

1891. Catalogue of the fossil birds in the British Museum. *8vo. pp. xxvii+368+17. 75 figs. addend. 2 indexes.* *London.*

This catalogue accounts for about 129 genera and 250 species, many introduced for the first time.

1891. *See* FLOWER, W. H. and LYDEKKER, R.

1894. A hand-book to the marsupialia and monotremata. *8vo. pp. 16+302. illust. pl.* (Allen's Naturalist's Library.) *London.*

?1894. Game Animals of India, Burma, etc. 2nd ed. *8vo.* *London.*

1894–6. The royal natural history. *6 vols. 4to. 72 col. pl. 1,600 text-figs. indexes.* *London.*

CONTENTS. Vols. 1–2. Mammals. 3, pt. 1. Mammals. 3 and 4. Birds. 5. Reptiles—Amphibians—Fishes. 6. Invertebrate animals. Preface by P. L. Sclater.

1895. A hand-book to the British mammalia. *8vo. pp. 14+339. illust.* (Allen's Naturalist's Library.) *London.*

[**1895**]. A hand-book to the carnivora. Pt. 1. *illust. pl.* (Allen's Naturalist's Library.) *London.*

CONTENTS. Pt. 1. Cats, civets, and mungooses.

1896. A Geographical History of Mammals. *8vo. pp. 12+400. col. illust.* *Cambridge.*

An important treatise, afterwards translated into German by Siebert.

1896. A dictionary of birds. *See* NEWTON, A.

1897. The Concise Knowledge of Natural History. Edited by A. H. Miles. *8vo. pp. 16+771. text illust.* (Wanting.) *London.*

The vertebrate sections of this popular treatise on general zoology were written by the author except the section on Birds, by R. Bowdler Sharpe. It compares favorably with a dozen other works of similar title and scope issued about the end of the nineteenth century.

1898. The Deer of all lands, etc.; Cervidae living and extinct. *4to. pp. 20+329. 24 col. pl. illust. text.* (Wanting.) *London.*

A fine monograph on an interesting subject, beautifully illustrated.

1898. Wild Oxen, Sheep, and Goats . . . living and extinct. *4to. pp. 14+318. 28 col. pl.* *London.*

One of several monographs by this voluminous writer on the vertebrate fauna of the world.

1900. The great and small game of India, Burma, & Tibet. *8vo. pp. 18+416. 9 col. pl. text-figs.* *London.*

This edition consists of 250 copies numbered and autographed, of which the volume in hand is No. 232.

1901. Die geographische Verbreitung und geologische Entwickelung der Säugetiere. Autorisierte Uebersetzung aus dem Englischen von G. Siebert. 2nd ed. *8vo. pp. 14+532. 82 figs. col. charts.* *Jena.*

A German translation of a well-known treatise on the geographical distribution of mammalian life.

1901. The great and small game of Europe, western & northern Asia and America; their distribution, habits, and structure. *folio. pp. 20+445. 8 col. pl. 75 figs. in text.* *London.*

This edition consists of 250 autographed copies, of which the volume in hand is No. 176.

******, BOWDLER SHARPE,** and **others.**

1904. The concise knowledge of natural history. *8vo. pp. 16+771. 530 figs. 2 indexes.* *London.*

1908. A guide to the domesticated animals (other than horses) exhibited in the . . . British Museum (Natural History).

1908. The sportsman's British bird book. *8vo. pp. xvii+620. 320 photogr. index.* *London.*

This excellent treatise comprises many more species than its title would indicate, and is rather a scientific treatise than a gun man's manual.

1908. The game animals of Africa. *8vo. pp. xix+484. 97 figs.* *London.*

1910. Library of natural history; introduction by E. T. Seton. *6 vols. 4to. illust. pl.* *New York.*

****** and others.**

1912. Amphibia. *London.*

This treatise, edited by a galaxy of natural history talent, should be shelved in every zoological library.

[**1912**]. Animal portraiture: with fifty studies in full colour reproduced from the original paintings [by Wilhelm Kuhnert]. *4to. pp. viii+104. 50 pl. (col.). T. of c. index.* *London.*

1913. *See* BR. MUS. (NAT. HIST.).

1913–16. *See* BR. MUS. (NAT. HIST.).

[**1916**]. Wild life of the world; a descriptive survey of the geographical distribution of animals. *3 vols. 4to.* Vol. I, *pp. xiv+472. 40 pl. (col.). 244 figs. T. of c. index.* Vol. II, *pp. xii+440. 39 pl. (col.). 221 figs. T. of c. index.* Vol. III, *pp. xi+457. 41 pl. (col.). 160 figs. T. of c. 2 indexes.* *London.*

The gifted author died on the 15th of April 1915, while this extensive work was in the press.

1926. The game animals of Africa. *8vo. pp. 14+483. illust.* *London.*

Second edition revised by J. G. Dollman.

n.d. Marsupials. *8vo. pp. 18+302. pl.* (Allen's Naturalist's Library.) *London.*

LYELL, CHARLES H. [1797–1875].
1863. Geological Evidences of the Antiquity of Man. 3rd ed. *8vo. pp. 12+520. 1 pl. text-figs.* *London.*

A most important treatise (of which there were many editions) for the student of vertebrate zoology.

1873. (The) geological evidences of the antiquity of man. 4th ed. *8vo. pp. 19+572. illust. pl. maps.* *London.*

LYNCH, WILLIAM FRANCIS [1801–65] and **CASSIN,** J.
1852. Official report of the U.S. Expedition to explore the Dead Sea and River Jordan. *pp. 235. front. (map fold.). 16 pl. 1 chart. T. of c.* *Baltimore, Md.*

The Ornithological Report of this Expedition (classified by J. Cassin) is unaccompanied with plates, as from the intense heat, and other causes, few birds were preserved.

LYNN, H. E. **1917.** *See* LYNN, J. C.

LYNN, J. C. and **LYNN,** H. E.
[**1917**]. Birds in a wood. *12mo. pp. (8)+248. front. (col.). index.* *London.*

LYNN NATURAL HISTORY SOCIETY. *Lynn, Mass.*
1846. Publications. *See also* HOLDER, J. B.

LYON. MARCUS WARD [1875–].
1904. Classification of the hares and their allies. (*Smithsonian Misc. Coll.*, vol. 45.) *pp. 126. 26 pl.* *Washington.*

Author's edition.

******** and **OSGOOD,** W. H.
1909. Catalogue of the type-specimens of mammals in the U.S. national museum, including the biological survey collection. *8vo. pp. 10+325.* (Smithsonian Institution. U.S. Nat. Mus. Bulletin 62.) *Washington.*

Author's separate.

LYONS. *See* ACADÉMIE DES SCIENCES, etc.

LYONS. Annales de l'Université. **1899**–*date*. *See* ANNALES DE L'UNIVERSITÉ DE LYON.

LYONS. Muséum d'Histoire Naturelle. *See* MUSÉUM DES SCIENCES NATURELLES DE LYON.

MAANBLAD VOOR NATURWETENSCHAPPEN. *Amsterdam.* **1870–98.**

MAAR, A.
[**1891**]. Illustrirtes Muster-Enten-Buch. *4to. pp. xix+316. 40 pl. (col.). 18 figs. T. of c. index.* *Hamburg.*

The raising of pedigree ducks and of wild ducks capable of domestication.

MAATSCHAPPIJ DILIGENTIA, THE HAGUE.
1872–1922. Natuurkundige Voordrachten.

1923–*date*. Natuurkundige Voordrachten. New series.

MABBOTT, DOUGLAS C.
1920. Food habits, seven species American shoal-water ducks. *8vo. pp. 67. 7 pl. T. of c.* (Contrib. from the Biolog. Survey.) *Washington.*

MABERLY, C. T. ASTLEY.
[**1925**]. Nature studies of a boy naturalist. *12mo. pp. 141. 50 figs. T. of c.* *London.*

MAC. *See also* Mc.

MACALISTER, ALEXANDER [1844–1920].
1878. Introduction to Systematic Zoology and Morphology of Vertebrate Animals. *8vo. pp. 8+365. illust. text.* *London and Dublin.*

An early textbook by a famous teacher of natural history.

1903. Zoology of Vertebrate Animals. (London Science Class-Books.) *London.*

MACALPINE, A. N. **1880.** *See* MACALPINE, DANIEL.

MACALPINE, DANIEL and **MACALPINE,** A. N.
1880. Biological atlas; a guide to the practical study of plants and animals. *4to. pp. ix+49. 24 pl. (col.).* *Edinburgh.*

MACBRIDE, ERNEST WILLIAM [1866–].
1896. The present position of morphology in zoological science. *8vo.* *London.*

1901. Zoology; an elementary text-book. *See* SHIPLEY, A. E. and MACBRIDE, E. W.

1920. Zoology, etc. 4th ed.

MACCAUGHEY, VAUGHAN [1887–].
1917. The natural history of Chautauqua. *8vo. pp. (10)+135. front. (map). T. of c. index.* *New York.*

MACFARLANE, RODERICK.
1908. Notes on the mammals and birds of northern Canada. *See* MAIR, CHARLES.

MACGILLIVRAY, JOHN [1822–67].
1852. Narrative of the voyage of H.M.S. Rattlesnake [to the Far East]. *2 vols. 8vo.* Vol. I, *pp. ix+402. 6 pl. 15 figs. 1 map (fold.). T. of c. append.* Vol. II, *pp. iv+395. 5 pl. 1 fig. T. of c. 6 append.* *London.*

In this expedition the birds were catalogued by J. Macgillivray, other vertebrates being neglected, or not described.

MACGILLIVRAY, WILLIAM [1796–1852].

1836. Descriptions of the rapacious birds of Great Britain. *8vo. pp. vii+482. 2 pl. 21 figs. T. of c. index.* *Edinburgh.*

1837–40. A history of British birds, indigenous and migratory: including their organization, habits, and relations. *3 vols. 8vo. illust. London.*

A very important, unique copy of an ornithological classic. The copy in hand of the three rather scarce volumes is of extreme interest because they were the author's own autographed copy, evidently amended by him to form part of a second edition. The dealer's catalogue furnishes a fair account of this valuable piece of ornithological history: 'An unique and exceedingly interesting copy, containing a great amount of fresh information in the author's neat handwriting throughout the three volumes, but more so in Vols. 1 and 3. The text has not only been corrected in the matter of single words, writer's and printer's errors, etc., but whole passages have been cancelled and fresh matter substituted in the margins. In addition many leaves and slips have been loosely pasted in, filled with extra matter, the whole being in MacGillivray's handwriting and *obviously intended for an enlarged and revised edition.* This intention he was unfortunately unable to carry out, his death intervening in 1852, after he had been spared to see the fifth and last volume of the *History* issued. No other edition was ever published.' *See also* the notes on another copy in the E.S.W. Library which bears evidence of another attempt to publish an enlarged and revised five-volume edition of this important treatise.

1837–52. (A) history of British birds, indigenous and migratory. *5 vols. 4to. illust.* *London.*

Coues says of this important classical treatise on British ornithology and of its celebrated author that he was 'an original thinker, a hard student, and an ornithologist of large, practical experience who wrote down what he believed to be true with great regard for accuracy of statement, and in a very agreeable manner'.
In addition to the ordinary library copy the E.S.W. Library has the five volumes profusely annotated by A. J. Balston (*nat.* 1839), a local naturalist of repute, and author of the *Birds of Kent.* He inserted a number of illustrations, feathers, and other additions which make the copy of increased value and interest. Briefly collated the volumes are: Vol. I, 1837. *pp. xvi+631. pl. I–IX. 95 text-figs.* Vol. II, 1839. *pp. xii+503. pl. X–XIII. figs. 96–185 in text.* Vol. III, 1840. *pp. xii+768. pl. XIV–XXII. figs. 186–276.* Vol. IV, 1852. *pp. xxviii+700. pl. XXIII–XXVI. figs. 1–59.* Vol. V, 1852. *pp. xx+688. pl. XXVII–XXIX. figs. 60–100.*

1846. British ornithology. Manual of British birds. 2nd ed. *2 vols. 8vo.* Vol. 1, *pp. 17+248. figs. 31. T. of c. index.* Vol. 2, *pp. 15+300. T. of c. index.* *London.*

A compact handbook of British birds, with descriptions of all the species, genera, and higher groups, in the classification adopted by the author. The first edition was issued in 1840–2.

******** and **LANKESTER,** EDWIN.

1855. The natural history of Dee Side and Braemar. *8vo. pp. xx+507. 5 pl. 23 figs. append. index.* *London.*

The manuscript of this work was completed by the author just before his death in 1852. It was later purchased by Queen Victoria and printed at her command. There is an annotated list of 101 species of birds. The copy in hand is a presentation from H.R.H. Prince Albert to Prof. Walker Arnott.

1910. Life of William MacGillivray . . . ornithologist. *8vo. pp. xiii+222. front. 11 pl. T. of c. index.* *London.*

A record of the life and work of the most eminent British ornithologist of his day, by J. Arthur Thompson. Inserted is a letter from MacGillivray to T. D. Weir.

MACK, AMY ELEANOR.

1922. Bushland stories. *8vo. pp. 6+183. pl.* *Sydney.*

[**1923**]. Bushland stories. *8vo. pp. 6+200. illust.* *Sydney.*

A second edition.

MACKENZIE, A.

1802. Voyages dans l'Intérieur de l'Amérique Septentrionale faits en 1789–93. *3 vols. folio.* (Translated.) ? *Paris.*

MACKINTOSH, N. A. and **WHEELER,** J. F. G

1929. Southern blue and fin whales. (*Discovery Reports,* Colonial Office.) Vol. I, *pp. 257–540. pl. 25–44.* *London.*

Author's separate.

MACLAUD, CH.

1906. Notes sur les mammifères et les oiseaux de l'Afrique occidentale. *12mo. pp. 14+352. 15 pl. map. illust. text.* *Paris.*

MACLOSKIE, GEORGE [1834–]. *See* KINGSLEY, J. S., *ed.*, 1885.

MACLURIAN LYCEUM. *Philadelphia.*

1827–9. Contributions . . . to the arts and sciences.

MACOUN, JAMES MELVILLE [1862–]. *See* CANADA, Report, etc., 1906.

1909. *See* MACOUN, JOHN.

MACOUN, JOHN [1832–1920].

1882. Manitoba and the great North-west . . . [its] natural history, etc. *8vo. pp. xxii+687. 3 pl. (col.). 3 maps (fold., 2 col.). 19 figs. (5 plans and diagr.). T. of c.* *Guelph, Ont.*

Several chapters are devoted to the natural history and botany of the district. Another edition appeared in 1883, published in London.

1883. Manitoba and the great Northwest, etc. *8vo. illust.* *London.*

Like the issue of 1882, but with a much abbreviated title-page, and lacking the two large colored folding maps of the Dominion of Canada and the North-west territory.

1900–4. Catalogue of Canadian birds. (Geological Survey of Canada.) Pts. I–III in 1 vol. *8vo.* Pt. I, *pp. vii+218.* Pt. II, *pp. iv+219–413.* Pt. III, *pp. iv+415–733+xxiii. bibliogr. index.* *Ottawa.*

A popular account of all the Canadian birds, with records of local occurrence, breeding habits, and museum specimens at hand.

******** and **MACOUN,** JAMES M.

1909. Catalogue of Canadian birds. *8vo. pp. viii+761+xviii. bibliogr. index.* (Dept. of Mines.) *Ottawa.*

An enlarged and revised edition of the senior author's work published in 1900–4.

1916. Catalogue des Oiseaux du Canada. (Ministère des Mines. Commission Géologique, Canada.) *8vo. pp. xii+909+xv. index.* *Ottawa.*

A French edition of the *Catalogue of Canadian Birds* by the same authors and published by the Government, that previously appeared in three parts, the first in 1900 and the last in 1904. The present volume, like the English edition referred to and another published in 1909, furnishes a full account of Canadian species, with museum and other local lists. The copy in hand is dated 1916 on the wrapper and 1915 on the title-page.

MACPHERSON, H. B.

1911. (The) home-life of a golden eagle. 3rd ed. *8vo. pp. 45+(3). 32 pl.* *London.*

Periodical observations at the nest of a pair of Golden Eagles in the heart of the Grampian Hills. The first edition was published in 1909; the second in 1910.

MACPHERSON, HUGH ALEXANDER [1858–1901] and **DUCKWORTH,** WILLIAM.

1886. The birds of Cumberland, including some notes on the birds of Westmorland. *8vo. pp. xx+206. front. (col.). map (col.). index.* *London.*

A short account of 250 species.

1891. An introduction to the study of British birds. *8vo. pp. 6+120. 20 figs.* *London.*

1892. A vertebrate fauna of Lakeland; including Cumberland, Westmorland, with Lancashire north of the sands. *8vo. pp. civ+552. 8 pl. (2 col., birds). 1 map (col. fold.). 9 figs. T. of c. glossary. 2 indexes.* *Edinburgh.*

1893. The partridge. Natural history by H. A. Macpherson. Shooting by A. J. Stuart-Wortley. Cookery by George Saintsbury. *8vo. pp. vi+276. front. 10 pl. 1 fig. 15 diagr. T. of c.* *London.*

Not a very happy mixture of scientific description, gun-room statistics, and kitchen recipes! There was another (identical) reprint of this edition published in 1894.

1894. The grouse. Natural history by H. A. Macpherson. Shooting by A. J. Stuart-Wortley. Cookery by George Saintsbury. *8vo. pp. vi+293. 11 pl. 1 fig. 7 diagr. T. of c.* *London.*

Another of the *Fur and Feather Series*, in which the scientist, the 'sportsman', and the cook divide the honors. There was a reprint of this edition in 1894.

1895. The pheasant. Natural history, by the Rev. H. A. Macpherson. Shooting, by A. J. Stuart-Wortley. Cookery, by Alexander Innes Shand. 3rd ed. *8vo. pp. viii+265. 9 pl. 1 fig. 5 diagr. T. of c.* *London.*

Another of the *Fur and Feather Series*, in which the rev. author, a 'sporting' writer, and an authority on cookery join to tell us all about the pheasant, his history and habits, his holiday slaughter, and his subsequent preparation for the table.

1897. A history of fowling; being an account of the many curious devices by which wild birds are or have been captured in different parts of the world. *8vo. pp. liv+511. 4 pl. 180 figs. T. of c. index.* *Edinburgh.*

1898. Tubinares. *See* BUTLER, A. G. British birds.

1904. A fauna of the north-west Highlands and Skye. *See* HARVIE-BROWN, JOHN ALEXANDER.

MADARÁSZ, GYULA [1858–].

1881. Adatok a Czinke-Félék Boncz es Rendszertamához különös tekintettel a Magyarországi fajokra. [Data on the anatomy and systematics of the Titmice, with special reference to the Hungarian species.] *8vo. pp. 26. 2 pl.* *Budapest.*

A treatise (in Hungarian) on various species of *Paridae*. The author's non-Hungarian first name is *Julius*, under which he is often quoted.

1887. *See* PELZELN, AUGUST VON.

1899–1903. Magyarország madarai a hazai madárvilág megismerésének vezérfonala. Anhang. [Die Vögel Ungarns, Auszug in deutscher Sprache.] *4to. pp. xxxiii+666. 9 pl. (col.). 170 figs. index.* *Budapest.*

The birds of Hungary, with an abstract in German.

1901. *See* ZICHY, J.

1910. Neue Vögel aus Ostafrika. *4to. pp. 175–8. 1 pl.* [*Budapest*].

Description of four new species of birds collected for the Budapest museum in East Africa.

MADAY, ISIDOR V. MAROS.

1891. Referat über den internationalen Schutz der für die Bodenkultur nützlichen Vögel; dem II. Intern. Ornitholog. Congress in Budapest 1891. *folio. pp. 17.* *Budapest.*

Outline of a plan for the international protection of useful birds.

1910. Vogelschutz Bestrebungen in Ungarn. *8vo. pp. 116. T. of c.* *Budapest.*

MADDEN, JOHN.

1897. The wilderness and its tenants. *3 vols. 8vo.* Vol. I, *pp. xvi+461.* Vol. II, *pp. (6)+566.* Vol. III, *pp. (6)+553. index.* *London.*

MADON, PAUL.

1928. Les corvidés d'Europe; leur régime, les relations avec l'agriculture et la chasse. *4to. pp. 255+27. T. of c.* *Paris.*

Critical summary of analyses of the stomach-contents of members of the Crow family in Europe.

MADRAS GOVERNMENT MUSEUM. *Madras.*

1894–1907. Bulletin.

MADRAS JOURNAL OF LITERATURE AND SCIENCE. *London, Madras.*

1833–53. Series 1.

1857–61. „ 2.

1864–6. „ 3.

1878–94.

MADRID. *See* ACADEMIA DE CIENCIAS EXACTAS, etc.

MADRID. Real sociedad española de historia natural.

1872–1902. Annales (Memorias, Actas).

1901–30. Boletín.

1903–30. Memorias. New series.

1928–9. Conferiencias y resenas, etc. *Madrid.*

MAGALHÃES, FERNÃO DE. *See* PLISCHKE, HANS, 1926.

MAGAUD, L.

1883. Les Oiseaux de la France. *4to. 21 col. pl.*

MAGASIN DE ZOOLOGIE. *Paris.*

1831–8. Series 1.

1839–45. Series 2.

See also REVUE ET MAGASIN DE ZOOLOGIE PURE ET APPLIQUÉE, and REVUE ZOOLOGIQUE.

MAGAZIJN VOOR WIS- EN NATUURKUNDIGE WETENSCHAPPEN. 1827–8. *Amsterdam.*

MAGAZIN FÜR ALLGEMEINE NATUR- UND THIERGESCHICHTE. 1790–6. *Göttingen.*

MAGAZIN FÜR FREUNDE DER NATURLEHRE UND NATURGESCHICHTE. 1794–7. *Berlin, Stralsund.*

MAGAZIN F. D. GES. THIERHEILKUNDE.

1835–74. Vols. 1–40. First forerunner of Archiv f. wissensch. u. pkt. Tierheilkunde. *Berlin.*

MAGAZIN FÜR HEILKUNDE UND NATURWISSENSCHAFT IN POLEN. 1828. *Warsaw.*

MAGAZIN FÜR DIE HÖHERE NATURWISSENSCHAFT UND CHEMIE. 1784–7? *Tübingen.*

MAGAZIN FÜR DIE NATURKUNDE HELVETIENS. 1787–9. *Zürich.*

MAGAZIN FÜR DIE NATURKUNDE UND OECONOMIE MECKLENBURGS. 1791–5. *Schwerin, Leipzig.*

MAGAZIN FOR NATURKUNDSKAB. 1871–7? *Copenhagen.*

MAGAZIN FOR NATUR- OG MENNESKEKUNDSKAB. 1841–6? *Copenhagen.*

MAGAZIN FOR NATURVIDENSKABERNE. *Christiania.*
1823–8.
1832–6. New series.
Continued as Nyt Magazin . . . Natur.

MAGAZIN FÜR DIE NEUESTEN ENTDECKUNGEN IN DER GESAMMTEN NATURKUNDE.
1807–18. (All pub.) *See* GESELLSCHAFT . . . FREUNDE, BERLIN.

MAGAZIN FÜR DEN NEUESTEN ZUSTAND DER NATURKUNDE. *Jena, Weimar.*
1797–1806. (Continues Magazin für das Neueste aus der Physik und Naturgeschichte.)

MAGAZIN FÜR DAS NEUESTE AUS DER PHYSIK UND NATURGESCHICHTE. *Gotha.*
1781–99. Continued as Magazin für den Neuesten Zustand der Naturkunde.

MAGAZIN FÜR RUSSLANDS GESCHICHTE, LÄNDER- UND VÖLKERKUNDE. 1825–6. *Mitau.*

MAGAZIN FÜR DIE THIERGESCHICHTE, THIERANATOMIE, UND THIERARZENEIKUNDE. *Göttingen.*
1790–4. Continued as Zoologische Annalen.

MAGAZIN DES TIERREICHS. 1793–5. *Erlangen.*

MAGAZINE OF NATURAL HISTORY AND JOURNAL OF ZOOLOGY. *London.*
1829–36. Series 1.
1837–40. ,, 2.
Forerunner of the *Annals and Magazine of Natural History.*

MAGAZINE OF NATURAL HISTORY AND NATURALIST. *London.*
1860. (Continues Naturalist.)

MAGAZINE OF ZOOLOGY AND BOTANY. *London, Edinburgh.*
1837–8. Continued as Annals of Natural History, and later Annals and Magazine of Natural History.

MAGDEBURG. Museum für Natur- und Heimatkunde. *Magdeburg.*
1905–*date*. Abhandlungen.

MAGDEBURG. Naturwissenschaftl. Verein.
1871–84. Jahresbericht 1–15.
Continued as:
1885–1907. (All pub.) Jahresbericht und Abhandlung.

MAGNUS, HUGO FRIEDRICH [1842–1907].
1870. Untersuchungen über den bau des knöchernen vogelkopfes. *8vo. pp. 4+108. 6 pl. Leipzig.*
A contribution to the study of the bony skull in birds. The copy in hand is from the Cabanis-Reichenow collection.

MAGYARHONI TERMÉSZETBARÁT. *Neutra.*
1856–8. German title, Naturfreund Ungarns.

MAGYAR ORNITHOLOGIAI KÖZPONT.
1898. Nomenclator avium regni Hungariae. *folio. pp. 80.* *Budapest.*
A useful list of 329 Hungarian bird species with their systematic and local names.

MAGYAR TERMÉSZETTUDOMÁNYI TÁRSULAT. *Budapest.*
1841–59. Évkönyvei.
1873–1907. Könyokiado-Vallalat.
1860–7. Közlönye.
1896–7, 1910. Megbizásából.
French title, Société Royale Hongroise des Sciences Naturelles.
German title, Ungarische Naturwissenschaftliche Gesellschaft.

MAHDI-HASAN.
1907. Zinatu'l khayl. A treatise on the horse in Hindustani verse. *8vo. pp. 220. num. cuts in text. index. lith.* *Cawnpore.*

MAILLARD, L.
1862. Notes sur l'Île de la Réunion (Bourbon). *2 pts. 8vo. 41 col. pl. text-figs.* *Paris.*
A second edition was issued in 1863 that shows a rearrangement of the topics in an important history of the flora and fauna found in this tropical island.

MAILLIARD JOSEPH.
1930. The Birds of Golden Gate Park. *8vo. pp. 84. 94 figs.* *San Francisco.*
Published under the auspices of the California Academy of Sciences.

MAIN, A. L.
1925. Bird Companions, etc. *8vo.* *Boston.*

MAINE.
1861. Preliminary Report on the Natural History, etc.

MAINE NATURALIST. (Knox Academy of Arts and Sciences.) 1921–*date.* *Thomaston.*

MAINE ORNITHOLOGICAL SOCIETY, JOURNAL OF THE. A Quarterly Journal of Maine Ornithology.
1899–1911. (All pub.) *8vo. illust. index.* Editors: J. Merton Swain, Waterville, and W. H. Brownson. *Bangor, Me.*
During the 13 years of its existence this periodical published numerous papers of scientific merit by American ornithologists of repute, and while most of the communications deal with the agenda of the Society (of which it was organ) and with local birds a number of others discuss more distant avifauna. It may be added that the *Journal* furnishes, without doubt, the best original records of the bird life of Maine. J. Merton Swain was particularly active in describing avian species, giving a complete history of many widely-distributed birds; in like manner, O. W. Knight, F. T. Noble, A. H. Norton, Wm. Powers, Dana W. Sweet, Leslie Lee, H. H. Brock, A. L. Lane and many others, well-known in the annals of New England ornithology, also made valuable contributions.

MAINE ORNITHOLOGIST AND OOLOGIST, THE.
1890–1. (All pub.) Edited and published by H. Staunton Sawyer. *8vo.* Monthly. *Garland, Me.* F. L. Burns has the following notes: Vol. I, Nos. 1–12, March 1890–Feb. 1891. *pp. 46.* Nos. 3/4 double. Vol. II, 1891, Nos. 1–3, March–May. *pp. 12.* Asst. Editor: C. N. Hillman.
Merged in the *International Naturalist.* Contains short papers by the Editor, B. S. Bowdish, Geo. Mims, J. W. P. Smithwick, Stewart White, J. W. Jacobs, and others.

MAINE UNIVERSITY. Department of Natural History.
1888–97? Bulletin.

MAINLAND, Leslie G.
1925. Zoo saints and sinners. *8vo. pp. 111. front. (col.). 2 pl. 30 figs. T. of c.* *London.*

MAIOLUS, S.
1597. Dies caniculares seu colloquia tria, et viginti, quibus pleraque naturae admiranda, quae aut in aethere fiunt, aut in Europa, Asia, atque Africa, quin etiam in ipso orbe nouo [America, etc.], et apud omnes Antipodas sunt, recensentur. *4to. pp. 1177.* *Romae.*
A very rare and useful treatise including lengthy accounts of birds and the other vertebrates of the four continents. The work is not listed in the *Cat. Br. Mus. (Nat. Hist.).*

MAIR, Charles [1840–].
1908. Through the Mackenzie basin; a narrative of the Arthabasca and Peace River treaty expedition of 1899; also Notes on the mammals and birds of northern Canada, by Roderick MacFarlane. *8vo. pp. 494. portr. map. many pl. and photos.* *London.*
This classic account of the natural history and other characteristics of Northern Canada contains a good, systematic description of its bird life, more than 400 species being described. A list of Birds and Eggs occupies pp. 287–448, with an index to these pages on pp. 492–4.

MAITLAND, Robert T.
1897. Prodrome de la faune des Pays-Bas et de la Belgique Flamande; ou, Enumération systématique de tous les animaux y observés depuis 1679–1897 excepté les insectes. *4to. pp. 10+62.* *Leide.*
1898. Notices sur les Animaux rares des Pays-Bas, etc. *La Haye.*

MAKHZAN-I-ILAJ-I-HAYWANI, by Doki Nandan.
1900. In Hindustani. *pp. 137. lithograph. Meeruth.*
This treatise on Indian veterinary art was composed about 1899. There are two copies, practically identical, in the Blacker Library.

MALAKOZOOLOGISCHE BLAETTER.
1854–62. Vols. 1–9. *Cassel.*

MALAN, Solomon Caesar [1812–94].
1848. A systematic catalogue of the eggs of British birds; arranged with a view to supersede the use of labels for eggs. *8vo. pp. viii+170.* *London.*

MALAYAN BRANCH OF ROYAL ASIATIC SOCIETY OF GREAT BRITAIN AND IRELAND. *See* ROYAL ASIATIC SOCIETY, MALAYAN BRANCH.

MALCHIEN, A. **1861.** *See* ORIGINAL DRAWINGS, Malchien, A.

MALCOLM, George and **MAXWELL,** Aymer.
1910. Grouse and grouse moors. *8vo. pp. viii+286. 16 pl. (col.). 1 pl. 11 diagr. index.* *London.*

MALHERBE, Alfred [d. 1866].
1843. Faune ornithologique de la Sicile. *8vo. pp. 2+242. illust. index.* *Metz.*
A scarce, specially entitled, repaged and indexed extract from the *Mém. Acad. roy. de Metz, 1842, 1843.* It is of value to the research student because of the scientific treatment of the subject, including a concise description of Sicilian species both indigenous and visitant.

1844–57. [Ornithological papers.] *8vo. pp. (8)+274+(4). (10 papers.)* *Metz.*
A collection of 10 ornithological papers (in French), author's reprints, by Alfred Malherbe during the years 1844–57.

[1850]. Nouvelle classification des picidées ou pics, etc. *12mo. pp. 1–56.* *Metz.*
A repaged, redated, and revised tractate, for a reading of which the Compiler is indebted to Dr. Chas. W. Richmond. The copy in hand, amended in MS. by Dr. Richmond, was originally published in *Mémoires de l'Académie Nat. de Metz,* 1848–9, but without mention of three new generic names given in the excerpt.

1861–2. Monographie des picidées, ou Histoire naturelle des picidés, picumninés, yuncinés ou torcols. *4 vols. folio. 123 col. pl. 2 vols.* text. *2 vols.* plates. *Metz.*
This, probably the best monograph on the woodpeckers of the world, is finely illustrated by well-drawn, hand-colored plates. The treatise was limited to 100 copies and issued in 24 *livraisons.* Sundevall, C. J., fully reviews the work in his *Conspectus avium Picinarum.* The following is a short collation of the four volumes in this library: Vol. I. 1861. text. *pp. lxx–214. 18 figs. in text.* Vol. II. 1862. text. *pp. 325.* Vol. III. 1861. *col. pl. I–XLIII (bis), XLIV–LXI.* Vol. IV. 1862, *col. pl. LXVII (bis)–LXXXVIII–CXXI.*

MALM, August Wilhelm [1821–82].
1852–73. Zoologiska observationer. *6 pts. 8vo. illust.* *Göteborg.*
1869. Naturhistor. Museum i Goeteborg. *Stockholm.*
1877. Goeteborgs och Bohusläns fauna vertebrata. *8vo. pp. 10+674. 9 col. pl.* *Göteborg.*

MALPIGHI, Marcello [1628–94].
1673. Dissertationes epistolicae duae, una de Formatione Pulli in Ovo. *4to.* [O.] *Londini.*
1686. Opera omnia. *2 vols. illust.* [O.] *London.*
1697. Opera posthuma, figuris aeneis illustrata. *folio. illust.* [O.] *London.*

MALVERN NATURALISTS' FIELD CLUB, TRANSACTIONS OF THE.
1855–70. Three parts. 1855. Pt. I. *pp. 40. Worcester.* 1858. Pt. II. *pp. 46. 2 pl. (1 col.). Malvern.* 1870. Pt. III. *pp. 216. 8 pl. (1 col.). Worcester.* Bound in are the *Proceedings,* 1871–5.

MALUMPHY, T. L. **1929.** *See* GIESEN, JOHN.

MANCHESTER FIELD NATURALISTS' AND ARCHAEOLOGISTS' SOCIETY. *Manchester, England.*
1865?–1914? Reports and Proceedings.

MANCHESTER (N. H.) INSTITUTE OF ARTS AND SCIENCES.
1899–1911. Vols. 1–5 (all pub.).

MANETTI, XAVERIO [1723–84] and **others.**

1767–76. Ornithologia methodice digesta atque iconibus aeneis ad vivum illuminatis ornata. *5 vols. folio.* Vol. I, *pp. (8)+96. 120 pl. (col.). 3 figs.* Vol. II, *pp. (6)+86. 120 pl. (col.). 2 figs.* Vol. III, *pp. (8)+78. 120 pl. (col.). 2 figs.* Vol. IV, *pp. (6)+72. 1 pl. 120 pl. (col.).* Vol. V, *pp. (6)+99. 120 pl. (col.). 6 indexes.* *Florentiae.*

Illustrated by 600 costly copper plates colored from nature. Not only each volume but each plate has a separate dedication. Pl. 218 shows a white peacock, the *Pavo albus* of Gesner and Aldrovandus. The nomenclature is chiefly that of Brisson, although Linnaeus is also quoted. The text is in Italian and Latin with duplicate titles.

MANGIN, ARTHUR [1824–87].

1866. Der Ocean. *Berlin.*

A German translation of the original French edition, 1864.

1868. The mysteries of the ocean. Translated from the French by W. H. D. Adams. *4to. pp. 12+470. pl. 130 figs.* *New York.*

1869. The desert world. From the French by Michelet. *8vo. pp. xi+624. 35 pl. 125 figs. index.* *London.*

1870. Nos Ennemis et nos Allies. *Tours.*

MANN, JAMES.

1848. The American bird-keeper's manual; or, Directions for the proper management of American and foreign singing birds. *16mo. pp. viii+166. T. of c.* *Boston.*

MANN, ROBERT JAMES [1817–86].

1876. Natal. *See* BROOKS, H.

MANNHEIMER VEREIN FÜR NATURKUNDE. *See* VEREIN FÜR NATURKUNDE, MANNHEIM.

MANNING, HENRY EDWARD, *Cardinal* [1808–92].

1915. The Little Flowers of St. Francis of Assisi. Tr. from the Italian *Fioretti di S. Francesco.* Sermon to the Birds, pp. 48–50. *London and Boston.*

A posthumous edition.

MANSEL-PLEYDELL, JOHN CLAVELL [1817–1902].

[**1888**]. The birds of Dorset. *8vo. pp. xvi+179. 10 figs. append. index.* *London.*

MANTELL, GIDEON ALGERNON [1790–1852].

1851. Petrifactions and their teachings; or, A hand-book to the gallery of organic remains of the British museum. *8vo. pp. 11+496. illust. London.*

MANTON, WALTER PORTER [1857–].

[**1882**]. Taxidermy without a teacher: comprising a complete manual of instruction for preparing and preserving birds, animals and fishes. *8vo. pp. (6)+56. 5 figs. T. of c.* *Boston.*

MANZELLA, ALBERTO.

1879–94. Iconografia dell' Avifauna Italica . . . Tavole. Fasc. 1–53. *folio.*

These fine plates really constitute the Atlas accompanying the large work of E. H. Giglioli.

MANZINI, CESARE.

1645. Ammaestramenti per allevare, pascere & curare gli uccelli, li quali s' ingabbiano ad uso di cantare. *12mo. pp. 58. illust. T. of c.* *Milano.*

A curious, rare and instructive little work on cage birds—the Nightingale, Canary, Lark, Thrush, etc.—their care and methods of teaching them to sing. Not listed in the *Cat. Br. Mus.* (*Nat. Hist.*).

MAO CH'I-LING [1623–1707].

1796. Mao Hsi-ho ch'üan chi. Collection of 117 miscellaneous works, one entitled *Hsü shih chuan niao ming,* treating of the birds in the Book of Poetry. *26·8×16·8 cm.* [G.]

MARBURG. Gesellschaft zur Beförderung des ges. Naturwissenschaften in Marburg.

1866–1930. Sitzungsberichte.

1923–30. Schriften.

MARCGRAVIUS, GEORGIUS [1610–44].

1648. G. M. . . . Historiae rerum naturalium Brasiliae libri octo. *folio.*

A famous treatise by this naturalist-physician, a joint work with *G. Piso . . . de medicina Brasiliensi libri quatuor,* etc. (q.v.).

1658. G. M. . . . tractatus . . . Brasiliae, etc. *folio.*

A conjoint treatise with G. Piso (entitled) *De Indiae utriusque re naturali et medica libri quatuordecim,* etc.—one of the earliest works on South American zoology.

MARCH, W. T.

1863. Notes on the Birds of Jamaica, with remarks by Baird. *Philadelphia.*

MARCHANT, JAMES ROBERT VERNAM and **WATKINS,** WATKIN.

1897. Wild birds protection acts, 1880–96. 2nd ed. *8vo. pp. xiv+174. append. index.* *London.*

An important work of reference for those interested in the subject.

MARCHESA, VOYAGES OF THE. *See* GUILLEMARD, FRANCIS HENRY HILL, 1886.

MARCUELLO, FRANCISCO.

1617. Primera parte de la historia natural, y moral de las aves. *8vo. pp. 28+220 num. folios. figs. in text.* *Zaragaça.*

This interesting, exceedingly rare and curious work is probably the first systematic Spanish work on ornithology. Although the writer projected other volumes only this first one was published. There is no copy in the library at Tring, in the collection of the Zoological Society, nor in Nat. History library of the British Museum, nor in any of the Oxford or Cambridge libraries. The volume in hand is from the library of Don Pedro Salvá y Mallen in whose published catalogue (Tom. II, p. 405) it is described as follows:
'Solo se publicó esta primera parte. Describe Marcuello la historia natural de cada pájaro, y á continuacion saca una moralidad, á verzes ingeniosas, deducida de las buenas ó malas inclinaciones del ave, la que aplica á las de igual clase, que realzan ó rebajan al género humano.
'Nic. Antonio llama Lucas al autor en verz de Francisco.'

MAREY, ÉTIENNE JULES [1830–1904].

1874. Animal mechanism: a treatise on terrestrial and aërial locomotion. *8vo. pp. xvi+283. 101 figs. index.* *New York.*

This first edition of an essay by an authority on animal aeronautics forms vol. XI of the celebrated *International Scientific Series* and in view of the recent rise of aviation in the world of science, war, and commerce, has become quite rare. Several other editions have been published, the third in London, 1883, pp. 16+283, with text illustrations.

1890. Physiologie du mouvement; le vol des oiseaux. *4to. pp. 2+39. 1 pl. 164 text-figs.* *Paris.*

A masterly treatment of bird flight from the earliest times to the present, especially from the mathematical viewpoint.

1895. Movement. *8vo. pp. xv+323. 204 figs. index.* *New York.*

This excellent translation from the original French is a comprehensive summary of the possibilities of instantaneous photography, the book also being replete with suggestiveness of new lines of research in the matter of movement. The flight of birds will be found described on pp. 226–38, the rise and fall of the wings being determined by the use of Chronophotography. The work forms vol. LXXIII of the *International Scientific Series.*

MARINE BIOLOGICAL ASSOCIATION OF SAN DIEGO. *California University.*

1904–11. Continued as Bulletin of the Scripps Institution for Biological Research, California University.

MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM. *Plymouth.*

1887–8. Journal.

1889–*date*. Journal. New series.

MARINE BIOLOGICAL LABORATORY, WOOD'S HOLE, MASS.

1890–9. Biological Lectures.

1898–9. Zoological Bulletin. Vols. I–II. Forerunner of the Biological Bulletin.

MARINE RESEARCH SOCIETY. *Salem, Mass.*

1922–*date*. Log.

1922–*date*. Publication.

MARK, Edward Laurens [1847–].

1903. Mark anniversary volume. To Edward Laurens Mark, Director of the Zoölogical Laboratory at Harvard University in celebration of twenty-five years of successful work for the advancement of zoology, from his former students 1877–1902. *4to. pp. xiii+513. front. (portr.). 36 pl. (partly col.). T. of c.* *New York.*

MARKHAM, Albert Hastings [1841–?1913].

1881. A Polar reconnaissance . . . Voyage of the 'Isbjörn' to Novaya Zemlya in 1879. *8vo. pp. 16+361. 2 maps. illust.* *London.*

Capt. H. W. Feilden made notes on the birds; while Dr. Günther described the fishes.

MARKHAM, Gervase [?1568–1637].

1676. Cheap and good husbandry for the well-ordering of all beasts and fowls. 13th ed. *4to. pp. [10]+146+[10]. index.* *London.*

A curious old work which passed through many editions, the first in 1614.

MARKS, Jeannette Augustus [1875–] and **MOODY,** Julia.

1910. A holiday with the birds. *8vo. pp. xi+211. front. (col.). 15 pl. T. of c.* *New York.*

MARLBOROUGH COLLEGE NATURAL HISTORY SOCIETY.

1866–1930. Report. *Marlborough.*

MARRINER, George R.

1908. The kea; a New Zealand problem including a full description of this . . . bird, together with the theories to explain its sheep-killing propensities. *8vo. pp. 151. front. 44 figs. 1 map. T. of c. bibliogr.* *Christchurch, N.Z.*

1909. The kea, etc. *8vo. pp. 151. front. 44 figs. (1 portr.). 1 map. T. of c. bibliogr.* *London.*

An exact reprint of the first issue, 1908.

MARRIOTT.

n.d. (The) parrot-keeper's guide, comprising the natural history of macaws, cockatoos, parrots, parrakeets, lories and love-birds. *16mo. pp. 48. front. 26 pl. 2 figs. index.* *London.*

MARSCHALL, August Friedrich [1804–87].

1873. Nomenclator zoologicus, continens nomina systematica generum animalium tam viventium quam fossilium, etc. *8vo. pp. 4+482. Vindobonae.*

Lists 19,966 entries, but Scudder (*Nomenclator zoologicus*, 1882) states that it is inaccurate and unreliable.

MARSEILLES.

1882–1930. Annales du Musée d'Histoire Naturelle. *See also* Musée d'histoire naturelle de Marseilles.

MARSH, E. L.

[1919]. Birds of Peasemarsh. *8vo. pp. (12)+233. 7 pl. T. of c.* *Toronto.*

An account of the birds of Peasemarsh Sanctuary, Georgian Bay, Canada.

MARSH, Othniel Charles [1831–99].

1878. Introduction and succession of vertebrate life in America. *4to. pp. 57.* (*Proceedings of the American Assoc. Adv. of Science*, 1877.)

Autographed present from the writer.

1880. History and methods of palaeontological discovery. *4to. pp. 50.* *New Haven.*

Presentation copy from author, with autograph.

1880. Odontornithes. A Monograph of the Extinct Toothed Birds of North America. *4to. pp. 201. 34 pl. 40 figs. in text.* *Washington.*

MARSHALL, Arthur Milnes [1852–93].

1893. Vertebrate embryology; a text book for students and practitioners. *8vo. pp. xxiii+640. 255 figs. index.* *New York.*

**** and **HURST,** C. Herbert.

1895. A junior course of practical zoology. 4th ed. *8vo. pp. xxxii+486. 73 figs. append. index.* *London.*

The first edition was published in 1887; the second in 1888; the third in 1892; the sixth in 1905; the eighth in 1918; and the ninth in 1920.

1905. Junior course of practical zoology. 6th ed. *8vo. pp. xxxiv+490. 75 figs. append. index.* *London.*

1918. A junior course of practical zoology. 8th ed., revised. *8vo. pp. xxxvi+515. 94 figs. append. index.* *London.*

1920. A junior course of practical zoology. 9th ed. *8vo. pp. xxvi+517. 94 figs. append. index.* *London.*

1928. The frog; an introduction to anatomy, histology, and embryology. 12th ed. *8vo. pp. 10+182. illust.* *London.*

MARSHALL, Charles Henry Tilson and **MARSHALL,** George Frederick Leycester.

1870–1. A monograph of the Capitonidae, or scansorial barbets. *4to. pp. (10)+xli+(1)+(190). 73 pl. (col.). T. of c. index.* *London.*

This fine monograph was issued in nine parts, of which pts. I–V appeared in 1870 and pts. VI–IX in 1871. The introductory matter is said to have appeared in pt. V. In the present copy pl. Nos. 1, 5, 14, 15, 19, 20, 21, 24, 38, 43, 45, 47–51, 54, 55, and 68 are original water-color copies—not the printed plates as issued.

******** and **HUME**, A. O.

1879–81. The game birds of India, Burmah and Ceylon. *See* HUME, A. O. and MARSHALL, C. H. T.

MARSHALL, ELIZABETH J. and **McGREGOR,** R. C.

1922. Philippine birds for boys and girls. *See* MCGREGOR, R. C. and MARSHALL, E. J.

MARSHALL, GEORGE FREDERICK LEYCESTER and **MARSHALL,** C. H. T.

1870–1. A monograph of the Capitonidae. *See* MARSHALL, C. H. T. and MARSHALL, G. F. L.

1877. Birds' nesting in India; a calendar of the breeding seasons, and a popular guide to the habits and haunts of birds. *8vo. pp. (8)+183. 12 pl. T. of c.* *Calcutta.*

MARSHALL, H. R.

1898. Instinct and Reason, etc. *New York.*

MARSHALL, WILLIAM ADOLF LUDWIG [1845–1907].

1887. Atlas der Tierverbreitung. *folio. col. pl.* *Gotha.*

1889. Die Papageien. *8vo. pp. 4+63. 63 col. pl. 1 col. map.* (*Zoologische Vortraege*, Heft 1.) *Leipzig.*

A general description of the order *Psittaci*, with tables showing the distribution of species and genera. The copy in hand is from the Reichenow Library, and is one of similar treatises by the same author on other avian orders.

1889. Die Spechte (Pici). *8vo. pp. [4]+76. map.* (*Zoologische Vorträge*, Heft 2.) *Leipzig.*

A general description of the woodpeckers, with tables and a map showing the distribution of the species and genera. The treatise is compiled in uniformity with his monograph on the Parrots. The copy in hand is from the Reichenow Library.

1895. Der Bau der Vögel. *8vo. pp. 8+462. 220 figs. in text.* *Leipzig.*

An excellent, well-illustrated manual on the structure and minute anatomy of the bird. The present copy is from the library of Prof. A. Reichenow.

1895. Plaudereien und Vorträge. Erste und Zweite Sammlungen. *2 vols. 8vo. illust. Leipzig.*

Two series of chapters on bird-life in Europe.

1898. Bilder-Atlas zur Zoologie der Vögel. *4to. pp. 194. 238 woodcuts.* *Leipzig and Vienna.*

One of a series of Atlases. The drawings are good, faithfully depicting species of 17 orders of aves. The volume is rather scarce. The copy in hand is one of the Cabanis-Reichenow collection.

1911–13. (Die) Vögel. *See* BREHM, A. E.

[1923]–7. Bilderatlas zur Tierkunde, mit beschreibendem Text. 2te Aufl. *4 vols. in 1. folio. illust.* *Leipzig.*

MARSIGLI, LIUGI FERDINANDO [1658–1730].

1726. Danubius Pannonico-Mysicus, etc. *6 vols. folio. illust.* *Hagae Com. et Amsteld.*

An early classic on the natural history of the River Danube with an account (vols. IV–VI) of the animals living in it and about its course; a description of the fishes, the birds and their nests, the quadrupeds roaming the banks, etc.

MARSTON, ROBERT BRIGHT [1853–]. **1904.** *See* AFLALO, F. G.

MARTENS, EDUARD CARL VON [1831–1904].

1867–76. Die Preussische Expedition nach Ost-Asien, etc. *4 vols. 8vo. illust.* *Berlin.*

Two volumes are devoted to zoology, edited by E. v. Martens, an important contribution to a little-known faunal region.

1869–79. *See* DECKEN, C. C. VON DER.

MARTENS, FRIEDRICH.

1675. Spitzbergische oder Groenlandische Reise Beschreibung gethan im Jahr 1671. *4to. pp. 8+132. 16 pl.* *Hamburg.*

This work furnishes the first exact description of Arctic Zoology, and is very rare, a facsimile print of it having been made by the Hakluyt Society.

MARTIN, *Mrs.* ANNIE.

1890. Home life on an ostrich farm. *8vo. pp. 288. front. 7 pl. T. of c.* *London.*

A popular account of the breeding and rearing of ostriches in South Africa.

MARTIN, EDWARD ALFRED.

[1897]. A bibliography of Gilbert White. *8vo. pp. xiii+274. front. 4 pl. (1 map).* *Westminster.*

This book, published under the auspices of the Selborne Society, not only contains an account of the celebrated naturalist, but also an almost complete list of the various editions of his work from 1789–1895, in all about 60.

MARTIN, ERNEST WHITNEY [1873–].

1914. The birds of the Latin poets. *pp. (4)+260. bibliogr. index.* *Stanford University, Calif.*

A successful attempt to present, in their own words, a picture of the Roman attitude towards bird life as reflected by their greatest poets. The collected material is fairly comprehensive down to the second century of the Empire, the thread being resumed in the Latin Anthology.

MARTIN, HORACE TASSIE [1859–?98].

1892. Castorologia, or The history and traditions of the Canadian beaver. *8vo. pp. 16+238. 14 pl. 2 maps. append.* *Montreal and London.*

A presentation copy from the author, with autograph.

MARTIN, MARTIN [–1719].

1698. A late voyage to St. Kilda. *1 vol. 8vo.* *London.*

MARTIN, PHILIPP LEOPOLD.

1869–82. Die Praxis der Naturgeschichte. *5 pts. and an atlas. 8vo and 4to.* *Weimar.*

This treatise teaches fully (*pp. 10+216, 10 pl.*) Taxidermy, 1876; Dermoplastik and Museum preparations in general (*pp. 16+295, 10 pl.*) 1880; the divisions and annexes of a zoological garden, their arrangement and care (*pp. 9+252, 12 pl.*) 1878, and the confinement and treatment of the birds, mammals, reptilia, amphibia, &c., in menageries, parks, and gardens (*pp. 15+210*) 1882. Altogether it is a most useful work for those engaged in any of the practical departments of zoology. There seem to have been other printings of the work, the above being (in part) the second edition.

MARTIN, R.

1834–5. History of British Colonies. *5 vols.*

MARTIN, W.

1930. The New Zealand Nature Book. *12mo. pp. 15+235. 65 pl. index.* *Auckland.*

A popular manual on natural history for use in schools.

MARTIN, WILLIAM CHARLES LINNAEUS [1798–1864].

1852. A general history of humming-birds, or the *Trochilidæ*: with especial reference to the collection of J. Gould. *8vo. pp. vii+232. 16 pl. (col.). index.* *London.*

A small work supplementing Jardine's *Natural History of Humming-birds*; according to Coues, it was issued as a later volume of that series.

1854. The feathered tribes of the British Islands. *See* MUDIE, ROBERT.

MARTINENGO-CESARESCO, Evelyn Lilian Hazeldine (Carrington) [1852–? 1912].

1909. The place of animals in human thought. *8vo. pp. (4)+376.front. 33 pl. index. London.*

Reprinted in part from the *Contemporary Review*, and here put into book form. An account of Greek and Hebrew conception of animals, animals in Eastern fiction, and the growth of modern ideas about animals.

MARTINI, Friedrich Heinrich Wilhelm. *See* BUFFON, 1772–1809.

MARTIN SAINT-ANGE, Gaspard Joseph [1803–88] and **GUÉRIN,** F. E.

1834–40. Traité élémentaire d'histoire naturelle comprenant l'organisation, les caractères et la classification des végétaux et des animaux, les mœurs de ces derniers, etc. Livr. 1–48. *4 vols. 8vo. pl.* (All pub.) *Paris.*

A very rare and important, though incomplete treatise on natural history. According to Engelmann's *Bib. Histor.-Nat.*, vol. i, p. 181, this work was published in three vols., of which vol. I, on zoology and comparative anatomy, was issued in 55 *livraisons*; vol. II on botany in 17 *livraisons*, and vol. III on mineralogy and geology in 5 *livraisons*.

MARTIUS, C. F. P. von.

1823–31. Travels in Brazil in the years 1817–20. *See* SPIX, JOHANN B.

MARTORELLI, Giacinto.

1895. Monografia illustrata degli uccelli di Rapina in Italia. *4to. pp. 6+215. 4 col. pl. text-figs. Milano.*

A brochure on Italian accipitres and other rapacious birds.

1906. Gli Uccelli d'Italia. *4to. pp. 16+679. 6 col. pl. text-figs. Milano.*

A popular textbook dealing to some extent with ornithology in general, but chiefly furnishing a good description of local avifauna. A revised edition is in process of publication, headed by the names of the ornithologists Edgardo Molltoni and Carlo Vandoni.

MARTYN, William Frederic.

1785. A new dictionary of natural history. *2 vols. 4to. pl. (col.). London.*

A rare work devoted to the popular side of natural history, more particularly based on the collections in the Leverian Museum established by Sir Ashton Lever in Leicester Square, London, in 1774.

MARVELS OF THE UNIVERSE. *See* JOHNSTON, HARRY, and others, 1926.

(THE) MARVELS LIBRARY.

1926. The marvels of animal ingenuity, etc. *See* EALAND, C. A.

MARYLAND ACADEMY OF SCIENCES, BALTIMORE.

1921–*date*. Bulletin.

1837–1921. Transactions (all pub.).

MASEFIELD, John Richard Beech.

1897. Wild bird protection and nesting boxes. *12mo. pp. 129. 9 pl. 12 figs. in text. Leeds.*

1906. Dampier's voyages. *See* DAMPIER, *Capt.* W.

MASIUS, Hermann, *i.e.* Karl Wilhelm Hermann [1818–93].

1855. Studies from nature [in North Germany]. *8vo. pp. viii+196. 8 pl. 4 figs. T. of c. London.*

Translated from the German. The first printing was in 1852.

1862. Die Thierwelt. *Jena.*

An excellent, semi-popular account of world fauna.

1870. Die Welt der Vögel. *See* MICHELET, JULES.

MASON, Francis [1799–1874].

1850. The natural productions of Burmah; or, Notes on the fauna, flora, and minerals of the Tenasserim provinces and the Burman empire. *8vo. pp. (14)+332. Maulmain.*

Contains, *inter alia*, a short annotated list of the birds known to inhabit Burmah at that time. How little was known of the ornithology of Burmah 12 years previously may be gathered from the fact that Dr. Helfer who was about to proceed on an exploring expedition was told by Dr. Pearson in his official charge, that he might possibly find there the Dodo and the Cassowary!

1860. Burmah . . . Notes on the nations, fauna, flora. *8vo. pp. xvii+(1)+913. indexes. Rangoon.*

The second edition; the first appeared in 1850, and a third in 1882–3, rewritten and enlarged by W. Theobald.

MASSACHUSETTS.

1838. Reports of the Commissioners on the Zoological Survey of the State. *8vo. pp. 107. Boston.*

In this official report E. Emmons listed the Quadrupeds, pp. 5–30; W. B. O. Peabody the Birds, pp. 31–33; D. H. Storer the Reptiles and Fish, pp. 35–50. These lists were subsequently enlarged and the species described more fully in journals and other reports noted in this Catalogue.

MASSACHUSETTS AUDUBON SOCIETY. *Boston.*

1917–*date*. Bulletin.

MASSACHUSETTS. Department of Agriculture. Division of Ornithology. Annual report. *8vo.* Edward H. Forbush, Director. *Boston.*

Contents and notes of first three issues:
No. 1 [1920]. *pp. 46. illust. T. of c.* Issued 1921.
No. [2]. 1921. *pp. 41. illust. T. of c.* Issued 1922.
No. [3]. 1922. *pp. 23.* Issued 1923. A useful serial regularly published every year to date. For a time a supplement, *Notes for Observers in Ornithology*, was issued separately on the 15th of each month. No more were published after March 1923.

1920–30. Items of interest. Published monthly by the Division of Ornithology, Dept. of Agriculture, Commonwealth of Mass., E. H. Forbush, Director. Mimeographed. *pp. 3–6. Boston.*

These notes were, naturally, descriptive of local avifauna, but often contained valuable records of migration, bird-banding, and other activities outside the State of Massachusetts.

MASSACHUSETTS SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS. *See* OUR DUMB ANIMALS.

MASSACHUSETTS. Zoological and botanical survey.

1839. Reports on the fishes, reptiles and birds of Massachusetts. *pp. xii+426. 4 pl. index. Boston.*

The report on the ornithology of the State by W. B. O. Peabody, will be found on pp. 257–404. Following the vernacular and scientific name of each species, is a short description of its general habits and distribution, etc.

1840. Report on the quadrupeds of Massachusetts. *8vo. pp. 2+86. Cambridge.*

MASSÉNA, A. (*Prince* d'Essling).

1846. Catalogue de la magnifique collection d'oiseaux de M. le Prince d'Essling. *4to. pp. 41. Paris.*

This collection was bought by Mr. Wilson and presented to the Academy of Sciences in Philadelphia where it still is. The title is also listed under Canivet [de Carentau], Emmanuel, who probably made the Catalogue.

MASSINGHAM, Harold John.

[1921]. Dogs, birds & others, natural history letters from 'The Spectator'. *8vo. pp. 198. T. of c. London.*

[**MASSINGHAM,** H. J. (*contd.*)]

[**1921**]. Some birds of the countryside. *8vo. pp. 208. T. of c.* *London.*

[**1922**]. Poems about birds, from the middle ages to the present. *8vo. pp. 415. index.* *London.*

[**1923**]. Untrodden ways; adventures on English coasts, heaths and marshes, and also among the works of Hudson, Crabbe, and other country writers. *8vo. pp. 11+255. front. (col.). index.* *London.*

1924. Sanctuaries for birds and how to make them. *8vo. pp. (8)+160. 8 pl. 18 figs. append.* *London.*

MATERÏALY K POZNANÏIÛ FAUNY I FLORY ROSSÏÏSKOL IMPERÏI. *Moscow.* **1892–1918**? Otdïel Zoologischeskïĭ.

MATHER, KIRTLEY F.

1930. Sons of the Earth. *100 illust.* *New York.*

A popular work on paleontology written by the professor of geology in Harvard University. A very good review of the subject is the chapter on the 'family tree of the higher vertebrates'.

MATHESON, DARLEY.

1914. British game birds. *8vo. pp. 10+173. 31 pl. (10 col.). T. of c.* *London.*

MATHEW, MURRAY ALEXANDER and **D'URBAN** W. S. M.

1892. The birds of Devon. *See* D'URBAN, W. S. M. and MATHEW, M. A.

1894. The birds of Pembrokeshire and its islands. *4to. pp. lii+131. front. 3 pl. 1 fig. 2 maps. index.* *London.*

An interesting account of the 236 species recorded. Another edition (8vo) was issued the same year.

1896–8. *See* BUTLER, A. G.

MATHEWS, FERDINAND SCHUYLER [1854–].

1904. Field book of wild birds and their music; a description of the character and music of birds, and complete musical notations of bird songs. *8vo. pp. xxxv+262. front. (col.). 52 pl. (37 col.). index.* *New York.*

A fairly successful notation of bird-song.

MATHEWS, GREGORY MACALISTER [1870–].

1910–28. The birds of Australia. *12 vols. folio. col. pl. indexes. supplements.* *London.*

The latest and most comprehensive systematic treatise on Australian birds. The 12 volumes, with their supplements, are profusely illustrated by beautiful hand-colored plates after drawings by Grönvold, Keulemans, Lodge and other well-known artists. Every detail of a well-ordered, scientific monograph is given, accompanied by a Check list and followed by a Bibliography and biography of authors. The copy in hand has all the (dated) wrappers bound in.

1913. A list of the birds of Australia; containing the names and synonyms connected with each genus, species, and subspecies of birds found in Australia. *4to. pp. 26+453. col. map.* *London.*

The author remarks that the above list is 'the logical sequence to his *Reference List to the Birds of Australia* published in *Novitates Zoologicae*, vol. XVIII'. After a somewhat controversial discussion of Australasian avian nomenclature he proceeds to furnish a tabulated list, with synonymy, types, type-localities, and range of all the Australian avifauna. There is appended a very complete and useful index, filling pp. 333–453. The work has become rather scarce; the copy in hand is from the Cabanis-Reichenow collection.

1920. Supplement No. 1. [to] The birds of Australia. Check list of the birds of Australia. Part I. Orders Casuariiformes to Menuriformes. Showing under each genus and species every synonym at present known to the Author, with references to coloured plates in this work and in Gould's folio *Birds of Australia. 4to. pp. iv+116.* *London.*

1920–4. The birds of Australia. Check list of the birds of Australia. *3 pts. in 2 vols. folio.* Being Supplement nos. 1–3 of his *Birds of Australia.* *London.*

******** and **IREDALE,** TOM.

1921. (A) manual of the birds of Australia. *8vo. pp. 24+279. 10 col. pl.* Vol. I. (All pub.) *London.*

CONTENTS. Casuarii to Columbae.

A scientific handbook on Australian birds and some extra-limital species. The nomenclature, synonymy, diagnosis, habits, distribution, and sexual differences are, with other characters, concisely stated, and the work is unusually well illustrated. The whole forms, so far as it goes, an abbreviated treatise that combines the essential information, with additions to date, of the larger works of Gould and Mathews.

1923. Supplement No. 2. [to] The birds of Australia. Check list of the birds of Australia. Part 2. Order Passeriformes (part). *folio. pp. xvi+117–56. append.* *London.*

The present copy and Supplement No. 3 are in the original dated covers, enclosed in a cardboard case.

1925. The birds of Australia. Bibliography of the birds of Australia. Books used in the preparation of his work with a few biographical details of authors and collectors. *4to. pp. 8+149. portr.* *London.*

A most useful review of the literature and brief account of the writers, a supplement to the comprehensive 1910–28 *Birds of Australia* (q.v.).

1927–30. Systema avium Australasianarum; a systematic list of the birds of the Australasian region. Prepared in conjunction with Special Committees of the British and American Ornithologists' Unions. *8vo. pp. x+426. index.* [*London.*]

Embraces the Pacific Islands, from Easter Island to the Celebes. The classification is that of Sharpe's *Hand-list.* The nomenclature is founded on the Rules of the International Zoological Congress. The figure in brackets after the Latin name refers to the *Catalogue of Birds in the British Museum.* An endeavor has been made to fix the type-locality of every quotation and the genotype of each genus.

1928. The Birds of Norfolk and Lord Howe Islands, etc. *4to. pp. 139. index. many hand-col. and monochrome pl.* *London.*

A well-made addition to the author's *Birds of Australia*, illustrated by Grönvold in his best style.

MATON, WILLIAM GEORGE [1774–1835].

1805. A general view of the writings of Linnaeus. *See* PULTENEY, R.

MATSCHIE, PAUL.

1893–*date*. *See* DEUTSCH-OST-AFRIKA.

1905. *See* SCHILLINGS, CARL GEORG.

1909. *See* BRAUER, AUGUST.

MATTHEWS, L. HARRISON. **1925.** *See* 'DISCOVERY' REPORTS.

MA TUAN-LIN [13th and 14th cent.].

1896. Wên hsien t'ung k'ao. Encyclopedia of general information, containing material about the animal kingdom, chüan 311–14. *24·4×15·2 cm.* [G.]

MAUNDER, SAMUEL [1785–1849].

1848. (The) treasury of natural history; or, A popular dictionary of animated nature. *2 vols. 16mo.* Vol. I, *pp. xiv+408. front. 473 figs. (107 birds). T. of c.* Vol. II, *pp. 409–812. 381 figs. (114 birds). glossary.* *London.*

MAXIMILIAN, *Prince* ZU WIED-NEUWIED. *See* WIED-NEUWIED, *Prince* ZU.

MAXWELL, AYMER [1877–1914] and **MALCOLM,** G.

1910. Grouse and grouse moors. *See* MALCOLM, G. and MAXWELL, A.

1911. Partridges and partridge manors. *8vo. pp. xii+327. front. (col.). 15 pl. (col.). 5 diagr. 3 figs. index.* *London.*

1913. Pheasants and covert shooting. *8vo. pp. ix +332. front. (col.). 15 pl. (col.). 5 diagr. index.* *London.*

MAXWELL, HERBERT EUSTACE [1845–].

1904. British fresh-water fishes. *4to. pp. 8+316. pl.* (The Woburn Library of Natural History.) *London.*

1909. Memories of the months. 5th series. *8vo. pp. xi+304. front. 5 pl. T. of c.* *London.*

A rearranged collection of essays published in British general journals, mostly on bird lore.

1917. *See* CORNISH, CHAS. J.

MAXWELL, MARIUS.

1924. Stalking big Game with a Camera. *4to. pp. 20+311. index. append.* *New York.*

A fine series of photographs of the larger (living) African fauna, with a preface by Sir Sydney Harmer. What an improvement on the methods employed by other 'hunters' who joyfully slaughter their victims to 'see what they look like'.

MAWSON, DOUGLAS [1882–].

[1915]. The home of the blizzard, being the story of the Australasian antarctic expedition, 1911–1914. *2 vols. 8vo.* Vol. I, *pp. xxx+349. 116 pl. (8 col.). 17 figs. T. of c.* Vol. II, *pp. xiii+338. 103 pl. (10 col.). 20 figs. 3 maps. 7 append. index.* *London.*

References to birds and other animals are numerous.

MAY, W.

n.d. The little book of British birds. *pp. vi+ 7–191. front. 46 pl. 1 fig (vignette). T. of c.* *London.*

This little book—probably one of the smallest if not the smallest—on British birds forms one of Tilt's handbooks for children each containing 48 plates, the present ones (woodcuts) being especially good for so small a volume. The size of this volume is three inches by two and one-half inches, probably the smallest format on birds yet published. The print is clear and easily read and the contents fairly good.

MAYER, A.

1821. Vollständiger Unterricht, wie Nachtigallen, Schwarzplatten, graue und gelbe Spottvögel zu fangen, etc. *12mo. pp. 8+96. T. of c.* *Pesth.*

The fourth edition of a scarce little work on local cage-birds, with directions as to catching, taming, and caring for them.

MAYER, ALFRED MARSHALL [1836–97].

1884. Sport with gun and rod in American woods and waters. *2 vols. 4to.* Vol. I, *pp. (4)+448. 20 pl. figs. T. of c.* Vol. II, *pp. (2)+449–888. 16 pl. figs. index.* *Edinburgh.*

Volumes relating chiefly to the killing of birds, somewhat redeemed by reliable descriptions of the victims and by directions how to mount them.

MAYER, AUGUST FRANZ JOSEPH CARL [1787–1865].

1865. Ueber das Ei der Vögel und der Reptilien. *4to. pp. 95. 4 col. pl.* *Dresden.*

This important tractate is an author's separate.

MAYER, CHARLES.

1921. Trapping Wild Animals in Malay Jungles. *8vo. pp. 207. illust.* *New York.*

1924. Jungle Beasts I have Captured [in Borneo, Sumatra, &c.]. *pp. 12+269. illust.*

An interesting account, well written.

MAYNARD, CHARLES JOHNSON [1845–1929].

1870. The naturalist's guide in collecting and preserving objects of natural history, with a complete catalogue of the birds of the eastern Massachusetts. *8vo. pp. ix+170. 10 pl. append. index.* *Boston.*

The first part is a taxidermist's manual, the second contains an annotated list of 299 species of birds, with notes on their distribution and habits. The present copy is one of the rare first edition of Maynard's first book. Another edition appeared in 1871, with a revised and enlarged printing 1877.

1871. The naturalist's guide, etc. *8vo. pp. vi+ 170. 10 pl. append. index.* *Boston.*

This edition differs from that of 1870 only in having no frontispiece or list and explanation of plates.

1877. (The) naturalist's guide. *8vo. pp. ix+204. 11 pl. (2 col.). 2 append. index.* *Salem, Mass.*

A revised and enlarged edition of the first issue of 1870, with two colored plates of birds.

1881. The birds of eastern North America; with original descriptions of all the species which occur east of the Mississippi River, between the Arctic circle and the Gulf of Mexico, with full notes upon their habits, etc. *4to. pp. iv+532. 35 pl. (col.). append. 3 indexes.* *Newtonville, Mass.*

Zimmer (*Ayer Cat.*, p. 423) gives a full account of the chequered career of this important treatise, illustrated by means of colored lithographs drawn by the author. Another revised edition was published in 1889–95.

1888–94. Contributions to Science. *2 vols. 8vo. illust.* *Newtonville, Mass.*

Irregularly issued essays, charmingly and accurately written, on numerous natural history subjects.

1889–95. The birds of eastern North America. Revised ed. *Newtonville, Mass.*

1890. Eggs of North American birds. Illustrated with ten hand-colored plates. *8vo. pp. iv+159. front. (col.). 9 pl. (col.). append.* *Boston.*

1896. Handbook of the sparrows, finches, etc., of New England. *8vo. pp. vii+94. 1 diagr. 18 pl. (col.). 11 figs. append. index.* *Newtonville, Mass.*

1898. A catalogue of the birds of the West Indies which do not occur elsewhere in North America north of Mexico. *8vo. pp. 40. 2 append.* *Newtonville, Mass.*

1905. The warblers of New England. *8vo. pp. (8) +140. front. (col.). 18 pl. (hand-col.). 6 pl. (uncol.). 56 figs. append. addend. index.* *West Newton, Mass.*

The first edition of this work was issued in 1901, with six parts and 13 plates, engraved and hand-colored by the author. The present copy bears date 1905 and is No. 110 of a 'Souvenir' edition of 500 copies.

[**MAYNARD,** C. J. (*contd.*)]

1910. An atlas of plates for the directory to the birds of Eastern North America. *front.* (*col.*). *50 pl.* (*col.*). *7 figs.* (*col.*). *index.* *West Newton, Mass.*

An ornithological Atlas, bearing the date of 1906 on the title-page, but not published until 1910. The 51 plates, some of which were drawn on stone, were used to illustrate the author's *Birds of Eastern North America*, but as the method of coloring many of them was quite different from that there employed, they are practically new plates. The remainder were engraved on wood especially for this book, the drawing and engraving being the work of the author, whilst the coloring was done under his supervision. The edition was limited to 100 copies of which the present one is No. 60, it having been especially colored and autographed by the author for Dr. Casey Wood. See attached letter dated December 27, 1922.

1916. A field ornithology of the birds of eastern North America. *8vo. pp.* (*2*)+*550. front.* (*col.*). *1 pl. 423 figs. append. index. West Newton, Mass.*

Written mainly for the identification of birds in the field, giving such points as form, flight, habits, and color that are readily seen by an ordinary field-glass. The songs or other sounds uttered by the birds are also given.

[**1928**]. Vocal organs of talking birds and some other species. Illustrated by the author. *12mo. pp. vii*+*380. front.* (*col.*). *15 pl.* (*2 col.*). *76 figs. index.* *West Newton, Mass.*

MAYNARD, *Mrs.* LUCY WARREN.

1898. Birds of Washington and vicinity; including adjacent parts of Maryland and Virginia. *8vo. pp. 204. 18 figs. T. of c. index.* *Washington.*

1902. Birds of Washington and vicinity. Revised ed. *8vo. pp. 210. 18 figs. index.* *Washington.*

MAYOU, BESSIE.

[**1877**]. Natural History of Shakespeare. *pp. viii*+*220. index.* *Manchester.*

Mc. *See also* MAC and M'.

McATEE, WALDO LEE [1883–].

1905. Birds of the vicinity of the University of Indiana. (*Proceedings of the Indiana Academy of Sciences*, 1904.) *pp. 65–202. 32 figs. T. of c.*

Author's reprint. The total number of species is 225, which includes 70 per cent. of the birds from the entire State. Numerous tables are given summarizing the facts recorded in the body of the paper.

1905. The horned larks and their relation to agriculture. *8vo. pp. 37. front. 1 pl. 13 figs. index.* *Washington.*

1908. Food habits of the grosbeaks. *8vo. pp. 92. front.* (*col.*). *3 pl.* (*2 col.*). *40 figs. T. of c.* *Washington.*

These lovely birds hitherto appreciated for their bright plumage, sweet song, and attractiveness as cage birds, are here shown by the present investigation to be entitled to every consideration at the hands of farmers owing to their services to agriculture in the eating of obnoxious weeds and invertebrates.

1911. Woodpeckers in relation to trees and wood products. *8vo. pp. 99. 12 pl.* (*2 col.*). *44 figs. T. of c.* *Washington.*

1926. The relation of birds to woodlots in New York State. *8vo. pp. 1–152. 4 pl. index.* (*Roosevelt Wild Life Bulletin*, vol. 4, no. 1.) *Syracuse, N.Y.*

[**1927**]. Propagation of game birds. *8vo. pp.* (*2*)+*57. 27 figs. T. of c.* *Washington.*

Author's separate.
This bulletin applies primarily to the ring-necked pheasant, bob-white, quail, mallard duck, and the Canada goose, species with which most success has been achieved on American game farms.

McCAULEY, C. A. H.

1877. Notes on the ornithology of the region about the source of the Red River of Texas. (*Bulletin U.S. Geol. and Geograph. Survey.*) *8vo. pp. 655–95.* *Washington.*

Author's edition, containing very full and interesting field-notes on the habits of birds frequenting a tract of country of which little was known.

McCHESNEY, J. H.

1895. Descriptions of new species of fossils from the palaeozoic rocks of the Western States. *4to. pp. 76. illust.* *Chicago.*

Author's reprint from *Trans. Chicago Acad. of Sc.*, vol. I.

McCLYMONT, JAMES ROXBURGH.

1920. Essays on early ornithology. *8vo. pp. 35. 2 pl. T. of c.* *London.*

n.d. Notes and articles contributed to the Zoologist and the Emu; reprints selected by the author. *8vo. 14 pts. in 1 vol. phot.*

Presentation copy from author.

McCOY, FREDERICK [1823–99].

1855. Systematic description of the British palaeozoic fossils in the Geological museum of the University of Cambridge. *folio. pp.* [*773*]. *pl.* *London.*

1878–88. Prodromus of the Zoology of Victoria. Decades 1–17. *2 vols. 20 pts. 8vo. 200 col. pl.* *Melbourne.*

McCULLOCH, A. R. *See* BR. ASSOC. AD. SCIENCE, 1914.

McCULLOUGH, (*Mrs.*) MYRTLE (born REED) [1874–].

[*c.* **1904**]. The book of clever beasts, studies in unnatural history. *8vo. pp. 10*+*231. illust. pl.* *New York.*

McDERMOTT, WILLIAM A.

1899. Birds and books; by Walter Lecky [*pseud.*]. *16mo. pp. 243.* *Boston.*

McEWEN, ROBERT STANLEY [1888–].

[**1923**]. Vertebrate embryology. *8vo. pp. xi*+*544. 252 figs. bibliogr. index.* *New York.*

McGILL UNIVERSITY. Department of Zoology.

1901–3. Papers.

1917–*date.* Publications.

McGILL UNIVERSITY PUBLICATIONS. *See* CANADA. MCGILL UNIVERISTY.

McGREGOR, RICHARD CRITTENDEN [1871–].

1901. Land Birds of Santa Cruz Co., California. *8vo. pp. 22.*

Author's separate (Pacific Coast Avifauna, No. 2).

1903–24. Birds from Luzon, Mindoro, Palawan and various other provinces and islands of the Philippine Group. *8vo.* (Author's reprints.) *Manila.*

This well-known systematist, who has devoted the best years of his life to editing the Bulletins of the Science Bureau in which most of his scientific papers have been published, is the greatest living authority on the faunal life of the Philippine Islands. In addition to numerous papers he has published several text-books on the animals —mostly birds—of the U.S. possessions in the Far East.

1904. Birds from Benguet Province, Luzon, and from the islands of Lubang, Mindoro, Cuyo, and Cagayancillo. *8vo. pp. 16.* *Manila.*

1904. The birds of Calayan and Fuga. Babuyan group. *8vo. pp. 34. 5 pl.* (*Bulletin of the Philippine Museum*, no. 4.) *Manila.*

Author's specially printed, local list of Philippine Islands birds.

1905. I. Birds from the islands of Romblon, Sibuyan, and Cresta de Gallo. II. Further notes on birds from Ticao, Cuyo, Culion, Calayan, Lubang, and Luzon. *8vo. pp. 34. 11 pl.* (*3 of eggs*). *Manila.*

These notes and descriptions of the birds from the above islands were issued as publications of the Philippine Bureau of Government Laboratories.

1905. I. Birds from Mindoro and small adjacent islands. II. Notes on three rare Luzon birds. *8vo. pp. 32. 18 pl.* *Manila.*

Specially entitled excerpts bound in the same wrapper.

******** and **WORCESTER,** Dean C.

1906. A hand-list of the birds of the Philippine Islands. *4to. pp. 123. 2 indexes.* *Manila.*

The 'Hand-List' gives in systematic sequence a list of all the birds hitherto known to occur in the Philippine Islands, numbering 692 species.

1909. (A) manual of Philippine birds. *2 vols. 8vo. pp. 16+769. indexes.* *Manila.*

A complete and well-known monograph on the birds of the Philippine Islands, with a full description of each species, their synonymy, habits, nidification, and distribution. The volumes in hand are the author's own interleaved copy with numerous notes. They were presented by him to the E.S.W. Library. He has autographed the first volume and in it made this notation: 'This copy was used by me in making the index; it also includes a duplicate proof of the index. Bound in two volumes by a native Filipino binder in Manila.'

1915. Birds in their economic relation to man. *8vo. pp. 14. 12 figs.* *Manila.*

1920. Index to the genera of birds. *4to. pp. 185.* *Manila.*

There are 8,839 names catalogued in this very useful index (that includes subgenera) based on Bonaparte's *Conspectus*, Gray's *Hand-list*, the *Catalogue of Birds in the Br. Museum*, Sharpe's *Hand-list*, Dubois' *Synopsis*, and in three lists by C. W. Richmond. The book in hand is a presentation copy to Casey Wood from the author.

******** and **MARSHALL,** Elizabeth J.

1922. Philippine birds for boys and girls. *8vo. pp. 138. front.* (*col.*). *5 pl.* (*col.*). *26 figs.* *Manila.*

A useful guide to the commoner varieties of Philippine birds. A second edition was issued in 1927 concerning which a letter from the author to Mrs. D. Marshall is inserted in the present copy.

McILHENNY, Edward Avery [1872–] and **SHUFELDT,** Robert Wilson.

1914. The wild turkey and its hunting. *8vo. pp. xi+245. 20 pl.* (*1 eggs*). *1 fig.* *Garden City, N.Y.*

McILWRAITH, Thomas.

1866. List of Birds observed near Hamilton, Canada West. *8vo.* *Salem.*

1894. The birds of Ontario; being a concise account of every species of bird known to have been found in Ontario. 2nd ed. *8vo. pp. 426. front.* (*portr.*). *40 figs. addend. glossary. index.* *Toronto.*

An annotated list of species, with descriptions of plumage, habitat, nests and eggs, &c.; a revised and enlarged edition of the first, 1886 issue.

McINTOSH, William Carmichael [1838–?1913].

1875. The marine invertebrates and fishes of St. Andrews. *folio. pp. 6+186. 9 pl.* (*col.*). *Edinburgh.*

******** and **MASTERMAN,** Arthur Thomas.

1897. The life-histories of the British marine food-fishes. *8vo. pp. 15+516. 21 col. pl. London.*

[**1917**]. List of Works, Memoirs and Papers. *8vo. illust.* [O. 3299, viii.]

McKERROW, Ronald B.

1927. An Introduction to Bibliography for literary students. *8vo.* *Oxford.*

One of the sources of information used in compiling this Introduction and Catalogue.

McLEARN, Frank Harris [1885–].

1924. Palaeontology of the Silurian rocks of Arisaig, Nova Scotia. *4to. pp. 180. 30 pl.* (*Canada. Geological Survey. Memoirs.*) *Ottawa.*

McMULLIN, S. H.

[**1879**]–**86.** Illustrations of the nests and eggs of birds of Ohio with text. *See* Jones, H. E.

McMURTIE [McMurtrie, McMurtier], Henry.

1834. Cuvier's Animal Kingdom arranged according to its organization. Translated from the French and abridged for the use of Students. *8vo. illust.*

McNIELE, J. H.

1925. Two ornithologists on the lower Danube. *See* Swann, H. Kirke.

McQUADE, James.

1885. The cruise of the Montauk to Bermuda, the West Indies and Florida. *8vo. pp. xv+441. front. 15 pl. 1 fig. T. of c.* *New York.*

M'VEAN, Colin A.

[**1877**]. Notes on the ornithology of Yeddo. *8vo. pp. 11.* [*Tokyo.*]

McWILLIAM, John Morell.

1927. The birds of the Island of Bute. *8vo. pp.* (*4*)+*128. 9 pl.* (*1 map*). *3 append. index.* *London.*

MECKEL, Johann Friedrich [1781–1833].

1826. Ornithorynchi paradoxi descriptio anatomica. *folio. pp. 63. 8 pl.* *Lipsiae.*

One of the first anatomical descriptions of the Duckbilled Platypus —by a famous comparative anatomist.

MECKLENBERG.

1847–30. Archiv d. Vereine d. Freunde d. Naturgeschichte in Mecklenberg. Jahrg. 1–83. Register und Supplemente.

MEDIZINISCH-NATURWISSENSCHAFTLICHES ARCHIV. 1907–10. *Berlin.*

MEDIZINISCH-NATURWISSENSCHAFTLICHE GESELLSCHAFT ZU JENA.

1878–1913. Denkschriften.

1877–1914. Sitzungsberichte der Jenaischen gesel. f. med. u. natur.

MEDLOCK, HENRY.
1853. The book of nature, introduction to the sciences of . . . zoology. By F. Schoedler. 1st American ed. . . . translated from the 6th German ed. by H. Medlock. *See also* SCHOEDLER, F. K. L.

[**1862**]. Elements of natural philosophy, by F. Schoedler. Second edition, translated from the 6th German ed. by H. Medlock. New edition, &c. *See* SCHOEDLER, F. K. L.

MEEK, ALEXANDER [1865–].
1922. Essentials of zoology. *8vo. pp. xii+325. 145 figs. index.* *London.*

MEEK, ARTHUR S.
[**1913**]. A naturalist in cannibal land. *8vo. pp. xviii+238. front. 31 pl. index.* *London.*
An interesting account of the author's wanderings in Australia and New Guinea. References to birds are numerous throughout the volume. The present Lord Rothschild wrote an introduction to the volume.

MEERWARTH, H.
[**1908**]. Lebensbilder aus der Tierwelt. 2nd series. Birds. *8vo. pp. 8+596. num. pl. T. of c. Leipzig.*
A profusely illustrated, popular description of a selection of interest-birds from all over the world. The well executed photo-plates (over 200) add greatly to the value and attractions of the work. The present copy is from the Cabanis-Reichenow collection.

MEGENBERG, KONRAD VON [1309–78].
1478. Das Buch der Natur. *folio. 290 leaves.* Johann Bämler. *Augsburg.*
This second edition of the first German book on natural history contains 12 full-page woodcuts contemporarily colored. For complete collation see Hain no. 4042. This copy, bound in original oak boards with leather back, lacks pp. 279 and 288 of the text. From the dealer's description is abstracted the following:
Small folio. 290 (of 292) leaves, 28 lines to the full page without marks. Gothic letter. Ornamental initials. (*Fol.* 1:) Das Register . . . (*Fol.* 4:) Hye nach volget das bûch der natur . . . (*Fol.* 292:) Hie endet sich das bûch der natur. Das hat getruckt vn volpracht Johannes Bämler zů Augspurg. An mitwoch vor Bartholomei. Ano rc, in dem. lxxviii. jare . . .
Second Edition. The (colored) *cuts are identical with those of the first edition.* They represent the following subjects: 1. A man being examined by two doctors. 2. The world, the solar system, and heaven. 3. *Quadrupeds.* 4. *Birds.* 5. Wonders of the Sea. 6. *Fishes,* etc. 7. *Serpents* and mythical animals. 8. Insects. 9–10. Trees and flowers. 11. St. Ulrich holding the fish. 12. Monstrosities. The two missing leaves (279 and 288) are unimportant and consist of text only. There is no copy in the British Museum or in the Bodleian library, and Schreiber records but five examples. The copy in hand is in fine state, crisp and untouched. The woodcuts of the *editio princeps,* 1475, Bämler, always appear uncolored; the illustrations of the present copy may, consequently, be regarded as the earliest portraits of birds in color to be found in any printed book. The copy in hand has a script index.

MÉHELŸ, L. VON.
1900. *See* BUDAPEST.
1901. *See* ZICHY, J.

MÉHEUT, M.
1913. Étude de la mer; faune et flore, etc. *2 vols. folio.* *Paris.*
An edition, practically a reprint of the first edition, with a preface by Yves Delage, appeared in 1924. It has pp. 414 and 50 col. pl., mostly of fishes.

MEINERTZHAGEN, DANIEL [1875–98] and **HORNBY,** R. P.
1899. Bird life in an arctic spring. *8vo. pp. [6]+150. 27 photopl.* *London.*
The posthumously published diary of a young naturalist—completed by a friend.

MEINERTZHAGEN, R.
1930. *See* NICHOLL, MICHAEL.

MEISEL, MAX.
1924–9. A Bibliography of American Natural History; the Pioneer Century, 1769–1865. *3 vols. 8vo.* *Brooklyn.*
This practical series discusses the role played by scientific societies in the progress of botany, paleontology, zoology, etc., in America, giving a history of their foundation, activities, publications, official-dom, from the middle of the eighteenth century to the year 1865.

MEISNER, CARL FRIEDRICH AUGUST [1765–1825].
1804. Systematisches Verzeichniss der Vögel. *8vo. pp. 6+70.* *Bern.*

******** and **SCHINZ,** H. R.
1815. Die Vögel der Schweiz, systematisch geordnet und beschrieben, mit Bemerkungen über ihre Lebensart und Aufenthalt. *8vo. pp. xxviii+327. col. pl.* *Zürich.*
An enlarged edition of these authors' *Systematisches Verzeichniss der Vögel,* 1804, forming a descriptive catalogue of Swiss Birds. The colored frontispiece, representing *Sterna leucoptera,* so often missing, is bound in at the back of the present copy. It has also many MS. notes; five pages of them at the end of the book.

MELA, AUKUSTI JUHANA [d. 1904].
1885. Fauna. *Helsingfors.*
A useful reprint from *Finlands Geografi.*

[**1909**]. Suomen Luurankoiset-Vertebrata Fennica-toinen kokonaan uudistettu painos toimittanut K. E. Kivirikko. *8vo. pp. 10+532. illust. maps.* *Porvoossa.*
A treatise in Finnish on Scandinavian vertebrates, especially those of Finland.

MÉLANGES DE LA SOCIÉTÉ LINÉENNE DE BORDEAUX. 1831–*date*. *See* BORDEAUX.

MELBOURNE. National museum.
1929. Illustrated guide to the collection of fossils in the National museum of Victoria. *8vo. pp. 10+55. illust.* *Melbourne.*

MELL, RUDOLF.
? **1925–9.** Beiträge zur Fauna sinica. Pts. 1–4. Grundzüge einer Oekologie der chinesischen Reptilien u. einer herpetologischen Tiergeographie Chinas.
This is an important series on Chinese reptiles.

MELLANDER, J. *See* THUNBERG, C. P., 1822–3.

MELLERSH, W. L.
1902. A treatise on the birds of Gloucestershire. *8vo. pp. viii+111. map. 6 pl. T. of c. index.* *Gloucester.*

MELLET, J.
1823. Voyage dans l'Amérique, etc. *Agen.*

MELLIS, JOHN CHARLES.
1875. St. Helena . . . including its fauna, flora, etc. *4to. pp. 14+426. pl. map.* *London.*

MELVILLE, ALEXANDER GORDON and **STRICKLAND,** H. E.
1848. The dodo and its kindred. *See* STRICKLAND, H. E. and MELVILLE, A. G.

MÉMOIRES DE L'ACADÉMIE DES SCIENCES . . . FRANCE. *See* ACADÉMIE DES SCIENCES DE L'INSTITUT DE FRANCE. **1901–22.**

MÉMOIRES POUR L'HISTOIRE NATURELLE DE LANGUEDOC. 1737. *Paris.*
(Wanting.)

MÉMOIRES DE LA SOCIÉTÉ DE PHYSIQUE ET D'HISTOIRE NATURELLE DE GENÈVE. 1821–*date*. *See* GENEVA.
(Wanting.)

MÉMOIRES DE LA SOCIÉTÉ DES SCIENCES NATURELLES DE MAROC.
1921–8. Pts. 2–18.

MÉMOIRES DE LA SOCIÉTÉ DES SCIENCES NATURELLES DE NEUCHÂTEL.
1836–1914. 1–5 (all pub.).

MÉMOIRES DE LA SOC. DES SCIENCES NATURELLES DE SEINE ET OISE, précédé d'un compterendu des travaux de cette Soc. depuis sa fond. jusqu'a l'année 1842.
1835–42. *2 vols.* *Versailles.*

MÉMOIRES DE LA SOCIÉTÉ DES SCIENCES NATURELLES DE STRASBOURG.
1830–70. Nos. 1–6 (all pub.).

MÉMOIRES DE LA SOCIÉTÉ DES SCIENCES PHYSIQUES ET NATURELLES DE BORDEAUX. 1855–*date*. *See* BORDEAUX.

MEMOIRS OF THE AMERICAN ACADEMY OF ARTS AND SCIENCES. 1785–1882. *See* AMERICAN ACADEMY.

MEMOIRS OF THE AUSTRALIAN MUSEUM, SYDNEY. 1851–*date*.

MEMOIRS OF THE MUSEUM OF COMPARATIVE ZOOLOGY, HARVARD UNIVERSITY.
1864–*date*. Vol. I–*date*.
This important series began as the *Illustrated Catalogue*. After publication of eight annual numbers the name was changed.

MEMOIRS OF NATURAL SCIENCES. *See* BROOKLYN INSTITUTE OF ARTS AND SCIENCES.

MEMOIRS OF THE NUTTALL ORNITHOLOGICAL CLUB.
1886–1930. Published by the Club. *8vo.*
Cambridge, Mass.
The first four titles of this important serial read: *Bird Migration*, by William Brewster, pp. 22; *The Ipswich Sparrow*, by Jonathan Dwight; the *Birds of Essex Co., Mass.*, by C. W. Townsend, April 1905, and the *Birds of the Cambridge Region*, by Wm. Brewster, July 1906.

MEMORIA ANUAL D. BUENOS AIRES MUSEO NACIONAL DE HISTORIA NATURAL. 1924–*date*.

MEMORIA D. BUENOS AIRES MUSEO NACIONAL DE HISTORIA NATURAL.
1894–9. 1–6.

MEMORIAS D. R. ACADEMIA DE CIENCIAS EXACTAS, FÍSCIAS Y NATURALES DE MADRID. 1850–*date*. *See* (R.) ACADEMIA DE CIENCIAS, etc. . . . MADRID.

MEMORIAS D. (R.) ACADEMIA DE CIENCIAS Y ARTES DE BARCELONA. 1876–*date*. *See* (R.) ACADEMIA DE CIENCIAS . . . BARCELONA.

MEMORIAS D. ACADEMIA MEXICANA DE CIENCIAS EXACTAS, FÍSICAS Y NATURALES. 1876–1910. *See* ACADEMIA MEXICANA, etc.

MEMORIE D. (R.) ACCADEMIA DELLE SCIENZE DELL' ISTITUTO DI BOLOGNA. *See* (R.) ACCADEMIA . . . BOLOGNA. 1850–1907.

MEMORIE APPARTENENTI ALLA STORIA NATURALE DELLA REAL ACCADEMIA DELLE SCIENZE DI PARIGI.
1748–68. Vols. 1–13. *4to.* (*With 485 pl.*) *Venice.*
These volumes are a translation into Italian, some years later, of the *Mémoires* of the *Académie Royale des Sciences* of Paris, beginning 1716. The translated volumes contain some additional matter not appearing in the original French issues.

MEMORIE DELLA CLASSE DI SCIENZE FISICHE. BOLOGNA. *See* (R.) ACCADEMIA . . . BOLOGNA. 1908–*date*.

MENABENUS, APOLLONIUS.
1581. Tractatus de Mango Animali, etc. *4to.*
Milan.
Extremely rare **first**, practically unknown, edition of this work on the Glutton, the Elk and the Reindeer. Not recorded by Agassiz; not in the British Mus. (Nat. Hist.)

MENAULT, E.
1874. L'Amour maternel chez les animaux. *illust.*
Paris.

MÉNÉGAUX, HENRI AUGUSTE [1857–].
1902–4. Les Mammifères. *8vo.*
This treatise is Vols. I and II of J. O. E. Perrier's *La Vie des Animaux*.
1906–8. *See* FRANCE. EXPÉDITION ANTARCTIQUE.
1910. Les oiseaux de France [par] Gabriel Étoc (*pseud.*). Avec Préface par H. A. Ménégaux.
1912. Catalogue des oiseaux de la collection Marmottan du Muséum d'histoire naturelle de Paris. *8vo. pp. 4+216. index.* *Tours.*
This repaged separate gives a list of 4,000 bird-skins in the collection.
1913. L'élevage de l'autruche, récolte et commerce des plumes. . . . Préface de M. Edmond Perrier. *4to. pp. 156. pl. diagr.* *Paris.*
On the culture of the ostrich for commercial purposes, especially in French territory. A presentation from the author.
1913. *See* LESSON, RENÉ PRIMEVÈRE.
1916–23. *See* BABAULT, GUY.

******** and **RAPINE,** J.
[1921]. Les noms des oiseaux trouvés en France (noms latins, français, anglais, italiens et allemands). *8vo. pp. 68. index.* *Paris.*

******** and **BABAULT,** GUY.
1923. Étude d'une collection d'oiseaux de l'Afrique orientale anglaise et de l'Ouganda. *4to. pp. 157. 6 pl. 1 map (fold. col.). T. of c.* *Paris.*

******** and **BERLIOZ.**
1923. Oiseaux . . . de la Mission à Angola, etc.

MÉNÉTRIÉS, EDOUARD [1802–61].

1832. Catalogue raisonné des objets de zoologie recueillis dans un voyage au Caucase et jusqu'aux frontiers actuelles de la Perse. *4to. pp. 272.* *St. Pétersbourg.*

[**1835**]. Monographie de la famille des Myotherinae où sont décrites les espèces qui ornent le musée de l'Académie impériale des sciences. *4to. pp. [2]+101. 16 pl.* *St. Pétersbourg.*

An early, fundamental, and scarce monograph on the Pittas and allied genera. The copy in hand is a repaged separate from the P. L. Sclater collection. Presentation copy to Geoffroy Saint-Hilaire from author, with autograph.

MENNESSIER DE LA LANCE, GABRIEL RENÉ [1835–].

1915–17. Essai de Bibliographie hippique, etc. *2 vols. and supplement. 8vo.* [O. 7208.] *Paris.*

MENZBĪR, MĪKHAĪL ALEKSANDROVĪCH.

1882. Ornīthologhīcheskaya Evropeĭskoĭ gheoghrafiya Rossiĭ. In Russian only. *8vo. pp. 4+524. 8 col. pl.* *Moskva.*

Monograph on the geographical distribution of the birds of Russia-in-Europe. A second edition appeared in 1892. The present copy was given by the author to P. L. Sclater.

[**1883**]. Revue comparative de la faune ornithologique des gouvernements de Moscou et de Toula. *8vo. pp. 47.* *Moscou.*

A local, distributive list of 266 species of indigenous and migrant birds observed in the Russian governments of Moscow and Toula.

1885. Oiseaux de la contrée Trans-Caspienne. *See* ZAROUDNOĬ, N.

1887. Vergleichende Osteologie der Pinguine in Anwendung zur Haupteintheilung der Vögel. *8vo. pp. (2)+105. 1 pl. (col. fold.).* *Moscou.*

Places the penguins in a new subclass of birds, *Eupodornithes*, of mesozoic origin, with particular resemblances to *Ceratosaurus*.

1888–94. Ornithologie du Turkestan et des pays adjacents. *4to. pp. (14)+391. 15 pls. (col.).* *Moscou.*

A monograph of the ornithology of Turkestan based on the birds collected by N. A. Syevertzov, and his MSS. thereon. The work was planned to occupy six volumes but was never completed. The present text, according to the announcement on the wrappers, was intended to form vol. II. The covers of the copy in hand are bound in at the end of the present text.

MERIDEN BIRD CLUB, REPORTS.

[**1911–16**]. Report 1st–3rd. *3 vols. 8vo. illust.* Edited by Ernest H. Baynes. *Boston.*

Contributors to this interesting periodical are E. H. Baynes, Frank W. Howe, and others, dealing with bird protection, nesting sites, bird enemies, bird food, etc.

MERREM, BLASIUS [1761–1824].

1781. De Animalibus Scythicis apud Plinium. *4to. pp. 22.* *Goettingae.*

1784–6. Beytraege zur besondern Geschichte der Vögel gesammelt. *2 pts.* (all pub.). *4to. 12 col. pl.* *Göttingen.*

A very rare and important item when complete. Plate 6 in the present copy is reproduced in good facsimile. Carus wrongly places the dates of publication as 1786–7.

[**1812–13**]. Tentamen systematis naturalis avium. *4to. pp. 24.*

An excerpt with special MS. title, from the Cabanis-Reichenow collection of important reprints. The author divides the subclass *Aves* into *carinatae* and *ratitae*, as usual, but makes a plea for further anatomical subdivisions differing in many respects from other and popular classifications, all of which he tabulates and discusses. As the author says: 'Genera plerumque secundum Linneum allegavi, non quod optima, sed quod notissima sunt.' The work certainly ranks among the fundamentals in the literature of avian classification.

MERRETT, CHRISTOPHER [1614–95].

1666. Pinax rerum naturalium Britannicarum, etc. *8vo. pp. 30+221.* *London.*

The first (and rare) printing of this British classic on natural history appeared in 1666, and although not of much scientific value is still one of the titles that should be known to the advanced student of zoology.

1667. Pinax rerum naturalium britannicarum, continens vegetabilia, animalia, et fossilia in hac insula reperta inchoatus. *12mo. pp. 32+223.* *Londini.*

The official second edition of a celebrated work (chiefly on botany and medicine), with the date 1667 in Arabic characters, that serves, among other markings, to distinguish it from the intermediate printing with the date in Roman.
For zoologists Dr. Merrett's cyclopedia is of great interest because it contains the earliest known list of British birds and something like a bibliography, on the last page.
Birds, pp. 170–84, comprise 170 species. The first edition is practically identical with the two printings collated in this catalogue. From the Dean Adams Library.

MERRIAM, CLINTON HART [1855–].

1877. A review of the birds of Connecticut. *8vo. pp. (2)+165. index. errata and addend.* *New Haven.*

A model, annotated catalogue of 291 species. The present copy is an autographed gift from P. L. Sclater.

1887. Report of the ornithologist [and mammalogist] for the year 1887. *8vo. pp. (4)+399–456. 2 figs. T. of c. index.* *Washington.*

Author's special edition. One of a series of annual reports, all of which are to be found in the McGill libraries.

1888. Report on bird migration in the Mississippi valley in the years 1884–85. *See* COOKE, W. W.

1888. Report of the ornithologist and mammalogist, for 1888. *8vo. pp. (4)+477–536. 1 pl. 2 figs. T. of c.* *Washington.*

1889. Natural history of the Tres Marias Islands, Mexico. *8vo. pp. 97. 2 figs. bibliogr. index.* *Washington.*

A general account by the author; mammals and birds by E. W. Nelson.

1899. Results of a biological survey of Mount Shasta, California. *8vo. pp. 179. 4 pl. 46 figs. index.* *Washington.*

1904. *See* PALMER, THEODORE.

1910. Check-list of North American birds. Prepared by a committee of the American Ornithologists' Union. 3rd ed. (revised). *See* AMERICAN ORNITHOLOGISTS' UNION.

1918. Review of the grizzly and big brown bears of North America. (Genus Ursus.) (*North Amer. Fauna*, no. 41.) *8vo. pp. 136. 16 pl.* *Washington.*

1923. *See* CORNEAU, NAPOLEON A.

MERRIAM, FLORENCE AUGUSTA [1863–] (BAILEY, FLORENCE MERRIAM, *Mrs.*).

1899. Birds through an Opera Glass. *12mo.* *Boston.*

MERRIFIELD, *Mrs.* MARY PHILADELPHIA [1804–89].

1860. (A) sketch of the natural history of Brighton and its vicinity. *8vo. pp. 12+227. map.* *London.*

Presentation copy from author.

1862. Natural History of Brighton. Letter laid in.

A second edition; copy with author's letter laid in.

MERRILL, FREDERICK JAMES HAMILTON [1861–1916].
1903. Natural history Museums of the United States and Canada. *8vo.* *Albany, N.Y.*

MERRILL, GEORGE PERKINS [1854–].
1920. Contributions to a history of American state geological and natural history surveys. *8vo. pp. xviii+549. 37 pl. 2 append. index.* *Washington.*

MERRILL, JAMES ANDREW [1861–].
[**1902**]. Studies in zoology; an introduction. *12mo. pp. 232. T. of c. append. glossary.* *New York.*

MERRILL, S.
1916. The Moose Book, etc. 1st ed. *N.Y.*

MERRIMAN, R. OWEN.
[**1923**]. Attracting birds with food and water. *8vo. pp. 16. 11 figs.* *Ottawa.*

MERSHON, W. B.
1907. The Passenger Pigeon. *illust.* *New York.*

MESSAGER. (**Sociétés Ornithologiques de la Suisse Romande.**) *Fribourg.*

MESSAGER D'OISELLERIE. In Russian. *Petrograd.*
The only reference to this 'Guide to the Bird Trade' seen by the Compiler is in the List of Journals, *Internat. Cat. Scient. Publ.*, 1903, p. 186, where only the French title is given.

MESSAGER ORNITHOLOGIQUE. *Brussels.* **1894.**

MESSAGER ORNITHOLOGIQUE. *Moscow.*
1910–17. Title in French, Russian, and German, the last as *Ornithologische Mitteilungen.* Vols. 1–8. *8vo.* Editor, G. J. Poljakoff. *Moscow.*
Dr. Ernst Hartert (Tring Museum) informed the Compiler that this periodical was continued during the war further than noted, but that, owing to prevailing conditions, it was not possible to bring the parts out of Russia.
Many new species are described in the *Messager*, and it was a scientific journal of high standing, with many well-known Slav contributors.

MESTON, ARCHIBALD.
1889. Report of the government scientific expedition to Bellenden-Ker Range upon the flora and fauna. *8vo. pp. 127.* *Brisbane.*

METCALFE, G.
1895. Australian zoology. *12mo. pp. ix+120. 1 fig. T. of c.* *Sydney.*

METHUEN, HENRY H.
1848. Life in the Wilderness, or wanderings in South Africa. *8vo. pp. 12+318. 3 pl. figs. in text.* *London.*
The first edition of this naturalist's observations was published in 1846.

METZ. *See* ACADÉMIE DE METZ.

MEUNIER, AMÉDÉ VICTOR [1827–].
1871. Les grandes Pêches, etc. *Paris.*

1872. Life in the primeval world, founded on Meunier's 'Les animaux d'autrefois', tr. by W. H. D. Adams. *12mo. pp. 335. pl.* *London.*

MEVES, FRIEDRICH WILHELM [1814–91].
[**1886**]. Die Grösse und Farbe der Augen aller europäischen Vögel, sowie der in der palearctischen Region vorkommenden Arten. *8vo. pp. 4+72. T. of c.* *Halle-a/S.*
A contribution to a natural classification of Aves based on the color of and diameters of the iris, in accordance with the universally accepted dictum that in classifying birds every constant character should be considered.
In this catalogue are listed all the species the color and measurements of whose eyes are available.

1911. Die Grösse und Farben der Augen der europäischen Vögel.
A posthumous printing of the first edition with many emendations by Willy Schlüter.

MEWES, W., *Mme*, and **VON HOMEYER,** E. F.
[**1886**]. Ornithologische Beobachtungen grösstentheils im Sommer 1869 auf einer Reise im nordwestlichen Russland gesammelt; ins Deutsche übertragen. *8vo. pp. 108.* *Wien.*

MEXICO. *See* ARCHIVES DE LA COMMISSION SCIENTIFIQUE DU MEXIQUE.

MEXICO. Museo Nacional de Historia Natural. *See* NATURALEZA.

MEYER, ADOLF BERNARD [1840–1911].
1879–97. Abbildungen von Vogel-Skeletten. *2 vols. 4to.* Vol. I, *pp. xiv+71. 121 pl. bibliogr. index.* Vol. II, *pp. xxi+120. 121 pl. bibliogr. index.* *Berlin.*
A series of very fine photogravures of avian osteology, with explanatory text. The work was issued in 24 parts the dates of which are given on the preserved wrappers.

1887. Die Hirschgeweih-Sammlung im königlichen Schlosse zu Moritzburg bei Dresden. Neue Folge. *folio. pp. 4+11. 31 pl.* *Dresden.*

1887. Unser Auer-, Rackel- und Birkwild und seine Abarten. *2 vols. folio.* Vol. 1. Text. [2]. Atlas. *17 col. pl.* *Wien.*

**** and **WIGLESWORTH,** LIONEL W.
1898. The birds of Celebes and the neighbouring islands. *2 vols. 4to.* Vol. I, *pp. xxxii+392. 17 pl. (14 col.). 7 maps (col., 2 fold.). bibliogr. index.* Vol. II, *pp. 393–962. 28 pl. (col.). index.* *Berlin.*
Most of the work was written by Wiglesworth. The original cover in the present copy is bound in at the end of each volume.

MEYER, BERNHARD [1767–1836] and **WOLF,** JOHANN.
1810. Taschenbuch der deutschen vögelkunde, oder Kurze beschreibung aller vögel Deutschlands. *2 vols. 8vo. pp. 614. 75 col. pl.* *Frankfurt-a/M.*
A classic handbook of German avifauna, illustrated by colored drawings, mostly of heads and feet. A supplement to this work of reference was published in 1822, and is bound with the present treatise, from the Godman Library. It is a rare book.

1815. Kurze Beschreibung der Vögel Liv- und Esthlands. *8vo. pp. xxiv+292. index.* *Nürnberg.*

1822. Zusätze und Berichtigungen zu Meyers und Wolfs Taschenbuch der deutschen Vögelkunde . . . als dritter Theil jenes Taschenbuchs. *8vo. pp. xxiv+292. T. of c. appended for all 3 pts.* *Frankfurt a. M.*

MEYER, Christian Erich Hermann von [1801–69].

1845–60. Zur Fauna der Vorwelt. *4 vols. folio. pl. Frankfurt a. M.*

Contents. Vol. 1. Fossile Säugethiere, Vögel und Reptilien aus dem Molasse-Mergel von Oeningen. 2. Die Saurier des Muschelkalkes mit Rücksicht auf die Saurier aus buntem Sandstein und Keuper. 3. Saurier aus dem Kupferschiefer der Zechstein-Formation. 4. Reptilien aus dem lithographischen Schiefer des Jura in Deutschland und Frankreich.

The tertiary marl of Oeningen was the site of the discovery of the remains of the extinct giant batrachian, named here *Andrias scheuchzeri*. It was originally thought to belong to one who had witnessed the Deluge (*Homo diluvii testis*). Cuvier first identified it as a *Salamandre gigantesque*. A fossil frog, *Latonia seyfriedii*, and other tailless batrachians from the same horizon are described and figured.

MEŸER, Henry Leonard [d. 1864].

1835–50. Illustrations of British Birds. *9 vols. folio. 313 col. pl. London.*

With the possible exception of Lord Lilford's *Birds*, this is the finest and most complete atlas of portraits of British avifauna (with their eggs) ever published. Owing to the irregular fashion in which the various printings were issued the exact dates of publication of the 79 parts are obscure. Mullens and Swann (pp. 401–2) remark that: 'The whole subject is attended with the utmost difficulty, hardly any two copies of the folio (imp. 4to) editions of the *Illustrations* being alike. This is owing to the fact that many extra plates were coloured and added to copies executed for friends of the Meÿer family.

'The difficulty is added to from the fact that there were certainly two, possibly three issues of the first edition of the folio, and that the later ones were being published before the first was complete, the plates often being interchanged or duplicated.'

The volumes in hand form a unique copy of the earliest printings, from the Mullens Library. The compiler of the sales catalogue says that the nine volumes of the set form, first, 4 volumes with the 313 'coloured plates as originally issued and 111 additional coloured plates from the first and second issues (6 being plates of Birds and 7 plates of Eggs not listed, others being second plates re-engraved from different designs or with the subject facing the opposite direction), also 31 uncoloured impressions on India Paper (never published); the whole comprising 455 plates bound in 4 volumes; second, a volume of wrappers, containing 56 Pink Wrappers of the first and second issues of the first edition (9 being in duplicate), with 41 buff wrappers of the third issue, or second edition; third, a collection of over *600 original water-colour drawings* and sketches and pencil drawings and sketches executed by Meÿer for the above (impl. quarto) work, comprising 109 finished and about 160 partly finished water-colour drawings of Eggs, a large number bearing the artist's pencilled descriptions and instructions, and also those of his wife; the whole mounted to impl. 4to size and bound in 4 vols. uniform with the above. . . . Together 9 vols. folio, hf. green morocco extra, t.e.g.: an extremely interesting and unique set, with the Mullens bookplate.

'Vol. I of the work has the 72 pages of text (all published) which was issued with the second edition, and which is identical in matter, but not in set-up with that of the 8vo edition (1842).

'A large number of the drawings bear neatly pencilled descriptions, directions, etc., in the autograph of the author-artist, with an autograph letter to his Wife also inserted, with a large portrait drawn in black and white chalks. In addition there are a number of folio and smaller leaves of his MS. penned in ink.'

There is also an important statement signed by Constance Meyer, as follows: 'These drawings are the only originals existing by my father and mother from which the plates were prepared for the "Illustrations of British Birds" in folio. They have been in my possession since my father's death in 1864 and are now disposed of by me, his surviving daughter. The smaller handwriting on the plates is that of my Mother and the larger that of my Father.'

That the work was at first intended to be published in conjunction with Yarrell's *Birds* is proved by a prospectus dated June 1847, which is part of the prospectus of Yarrell's work inserted in the series described above, announcing Part I of a second issue of the 'Coloured Illustrations of British Birds' to be published in parts simultaneously with Yarrell's *History of British Birds*, the motive being to supply colored illustrations of Birds to Yarrell, whose illustrations of course were uncolored. Difficulties, however, arose, and Meyer's work was issued independently and without connexion with Yarrell.

1835–50. Illustrations of British birds. *See also* ORIGINAL DRAWINGS.

1838–44. Illustrations of British birds. *4 vols. folio. 317 col. pl. London.*

No letterpress having been issued with the folio editions the 8vo printings (which omit all plates but those of the eggs) were published to complete the work. Two of these latter are in this library. The present copy is of the second edition, or mixed second and third, of this truly magnificent work. Note that the diaeresis is now omitted from the 'y' in Meyer. Some of the pictures have been redrawn and printed on heavier plate paper, with the birds faced to the left instead of to the right as in the first edition, and the impressions are not as clear as in the early printings. Moreover, there are figures of eggs at the bottom of some of the plates and occasionally the legends are altered.

The copies of Meyer's works in the E.S.W. Library are separately annotated, the 8vo format being taken as furnishing the descriptive text for the folio editions. The four volumes in hand are briefly collated as follows: Vol. I [1838]. *78 col. pl.* Vol. II [1839]. *76 col. pl.* Vol. III [1842]. *82 col. pl.* Vol. IV [1844]. *81 col. pl.* The names of the birds are printed below the plates with occasional short descriptive legends.

1842–50. Coloured illustrations of British birds and their eggs. *7 vols. 8vo. T. of c. 2 indexes.*

Vol. 1, *pp. iv+230. 48 pl. birds (45 col.). 13 pl. eggs (col.).*
Vol. 2, *pp. iv+233. 47 pl. birds (45 col.). 13 pl. eggs (col.).*
Vol. 3, *pp. iv+240. 45 pl. birds (45 col.). 15 pl. eggs (col.).*
Vol. 4, *pp. iv+215. 45 pl. birds (45 col.). 15 pl. eggs (col.).*
Vol. 5, *pp. iv+192. 46 pl. birds (45 col.). 15 pl. eggs (col.).*
Vol. 6, *pp. iv+185. 46 pl. birds (45 col.). 14 pl. eggs (col.).*
Vol. 7, *pp. viii+206. 53 pl. birds (52 col.). 17 pl. eggs (col.). London.*

The original edition (without text) was in folio and, like the octavo editions, was issued in parts. The present copy is said to resemble the former in all respects, except as to size and the addition of text, but in most of the editions there appear to be a good many discrepancies. In the present one vol. 1 contains 61 pl., whereas other copies are said to contain 65 pl (59 col.). The total number of plates in this copy is 432, of which 425 are colored, 330 representing birds, and 102 eggs. This differs from the one collated by Mullens and Swann, p. 404, who give 322 as of birds, and 110 of eggs.

1853–7. Coloured illustrations of British birds, and their eggs. *7 vols. 8vo. 2 indexes.*

Vol. 1, *pp. iv+230. 48 pl. birds (45 col.). 13 pl. eggs (col.). T. of c.*
Vol. 2, *pp. iv+233. 45 pl. birds (45 col.). 13 pl. eggs (col.). T. of c.*
Vol. 3, *pp. iv+240. 45 pl. birds (45 col.). 15 pl. eggs (col.). T. of c.*
Vol. 4, *pp. iv+215. 45 pl. birds (45 col.). 15 pl. eggs (col.). T. of c.*
Vol. 5, *pp. iv+192. 46 pl. birds (45 col.). 15 pl. eggs (col.). T. of c.*
Vol. 6, *pp. iv+185. 46 pl. birds (45 col.). 14 pl. eggs (col.). T. of c.*
Vol. 7, *pp. viii+206. 53 pl. birds (52 col.). 18 pl. eggs (col.). T. of c. London.*

This edition differs from the 8vo one of 1842–50 in having an extra plate of eggs which were unknown when the previous edition was published. In vol. 2, also, there are only 45 plates instead of 47, thus making the total number of plates 431 instead of 432, of which 328 represent birds and 103 eggs.

MEYER, Paul Ernst.

1908. Studien über die Oberhautgebilde des Vogelfusses. *8vo. pp. 31.* (Friedrich-Wilhelms-Universität thesis, Berlin.) *Berlin.*

A small 'Arbeit' on the dermal covering in the feet of birds.

MEYER, Th. K.

1927. Birds and Beasts of the Roman Zoo. *8vo. pp. 386. London.*

MIALL, Louis Compton [1842–1921].

1911. History of Biology. *London.*

A valuable work for the student.

1912. The early naturalists; their lives and work (1530–1789). *8vo. pp. xi+396. T. of c. index.* *London.*

There is a second copy in the Osler Library.

MICHELET, JULES [1798–1874].

1859. L'oiseau. 6th ed. *12mo. pp. lvii+330. T. of c.* *Paris.*

A scientific and extremely interesting biography of the bird by one of the greatest historians and bird-lovers of the nineteenth century, whose laborious days were given over to civil, his leisure evenings to natural history. This treatise has been often republished and translated, the first edition having been issued in 1856.

1861. La mer. 2nd ed. *Paris.*

1867. L'oiseau. 210 vignettes sur bois dessinées par H. Giacomelli. 8th ed. *4to. pp. 4+424. Paris.*

1868. The Bird. *210 illust.* (Giacomelli). *8vo.* *London.*

1869. The bird [tr. from the Fr.] by W. H. Davenport Adams. *8vo. pp. x+340. 233 figs. T. of c.* *London.*

One of four English editions.

1870. Die Welt der Vögel [tr. from the Fr.] by Herman Masius. *8vo. pp. 336. illust.* *Berlin.*

1870. The Bird. Tr. by W. H. D. Adams. *8vo. pp. xii+349. 239 figs. index.* *London.*

1874. The Bird. Tr. by W. H. D. Adams.

A reprint of the edition of 1870.

1874–5. The Sea, the Bird, the Insect. (Translated.) *3 vols. 8vo.* *London.*

1877. De vogel; natuurstudien [tr. from the Fr.]. 2nd ed. *8vo. pp. 4+258. illust.* *Nijmegen.*

A Dutch edition of Michelet's *Bird.*

1883. The Bird. Tr. by W. H. D. Adams. *pp. xii +350. 239 figs. index.* *London.*

A slightly different English edition.

1898. L'oiseau; étude par François Coppée. *12mo. pp. xv+390. T. of c.* *Paris.*

A reprint of the sixth edition, with foreword by François Coppée, in which he regrets that Michelet had forgotten to add a chapter on the birds of Paris.

MICHELL, E. B.

1900. The art and practice of hawking. *8vo. pp. xii+291. 12 pl. index.* *London.*

MICHIGAN ORNITHOLOGICAL CLUB.

1897–1905. Bulletin of the Michigan ornithological club. Published quarterly in the interests of ornithology in the Great Lake region. *6 vols. 8vo. illust. pl. (partly col.).* Nos. 3 and 4 of vol. III were never published.

Grand Rapids 1897–9; Detroit, 1905.

This club organ belongs to the serious class of ornithological journals and during its career played a useful role in mid-western American bird literature. On its editorial staff it had such well-known ornithologists as W. B. Barrows, Whitney Watkins, T. L. Hankinson, P. A. Taverner (now in the service of the Canadian Government), Norman Wood and many other Michigan ornithologists, who maintained until its suspension the early scientific reputation of the periodical.

MICHIGAN UNIVERSITY. Museum of Zoology.

1916–*date*. Miscellaneous Publications.

1913–*date*. Occasional Papers.

MICHIGAN UNIVERSITY. Zoological Laboratory.

Contributions.

MICROSCOPIC JOURNAL. **1841–2.** *London.*

(R.) MICROSCOPICAL SOCIETY. *London.*

1878–80. Journal. Series 1.

1881–6. Journal. Series 2.

1887–*date*. Journal. Series 3.

Continues Monthly Microscopical Journal.

Transactions. *See* QUARTERLY JOURNAL OF MICROSCOPICAL SCIENCE.

MIDDENDORF, ALEXANDER THEODOR VON [1815–94].

1847–75. Reise in den äussersten Norden und Osten Sibiriens, etc. *4 vols. and atlas. 4to. St. Petersburg.*

In this important and famous zoological report J. Müller describes the fossil fishes, and Middendorf the mammals, birds, and amphibia.

1855. Die Isepiptesen Russlands. Grundlagen zur Erforschung der Zugzeiten und Zugrichtungen der Vögel Russlands. *folio. pp. 143. maps (2 fold.).* (*Mém. de l'Acad. des Scien.*, 6 sér., Scien. Nat., vol. 8.) *St. Petersburg.*

A specially paged excerpt (not published until 1859 and without maps) furnishing a valuable contribution to the migratory habits of birds of the Russian empire. Tables show the dates (mostly O.S.) at which species appear in given localities. The copy in hand is from Lord Lionel Walter Rothschild's library, interleaved and furnished with 100 additional blank pages for notes.

1855. Zoologie seiner Reise in Nord- und Ost-Siberien. Vertebrata. Vol. II. *4to. 58 col. pl.* *St. Petersburg.*

That portion of the *Reise in d. äussersten Norden und Osten Siberiens* relating to living vertebrata.

1867. Die Tierwelt Sibiriens.

Vol. IV, Theil 2, Lief. 2, pp. 1095–1394, of Middendorf's *Reise in . . . Ost-Sibiriens wahrend 1843–44.*

1891. Vogelleben an den Russischen Leuchtthürmen des Schwarzen, Kaspischen und Weissen Meeres. *8vo. pp. 124.* *Wien.*

An interesting account of the birds observed by the author and various other naturalists about the lighthouses in the Black, Caspian, and White Seas.

The present pamphlet is a gift from the author to Dr. Anton Reichenow and was at one time in the latter's library.

MIDDLESEX NATURAL HISTORY AND SCIENCE SOCIETY. *London.*

1887–91. Transactions.

MIDLAND NATURALIST. (Midland Union of Natural History Societies.) *London, Birmingham.*

1878–93. Includes Transactions of Birmingham Natural History and Microscopical Society.

MIDLAND NATURALIST. *Notre Dame, Ind.*

1909. Continued as American Midland Naturalist.

MIDLAND UNION OF NATURAL HISTORY SOCIETIES. *See* MIDLAND NATURALIST, LONDON.

MIGRATORY BIRDS; or, such as visit Britain at different seasons of the year. *See* ANONYMOUS, 1847.

MIKAN, JOHANN CHRISTIAN [1769–1844].

1820–5. Delectus Florae et Faunae Brasiliensis, etc. *folio. pp. 2+50. 24 col. pl.* *Vindobonae.*

This classic work was issued in four unnumbered parts and contains matter important for systematic study.

MIKROKOSMOS.
1907–*date*. Zeitschr. f. Arbeit a. d. Gebeite d. Naturwissenschaften. *Stuttgart.*

MIKROSCOPIE FÜR NATURFORSCHER.
Berlin, Lichterfelde. **1924**–*date*.

MILAN. Museo Civico di Storia Naturale.
See SOCIETÀ ITALIANA DI SCIENZE NATURALI E MUSEO CIVICO.

MILBERT, JACQUES GÉRARD [1766–1820].
1812. Voyage . . . à l'Île de France, au Cap de Bonne-Espérance et à l'Île de Ténériffe. *2 vols. 8vo and folio. atlas. 43 pl. 2 maps.* *Paris.*
Contains considerable information regarding the faunal history of the Cape of Good Hope and the Canary Islands.

MILES, A. H. *See* LYDEKKER, R., 1897.

MILLA, KARL.
1895. Die Flugbewegung der Vögel. *8vo. pp. 2+93. 27 figs. in text. T. of c.* *Leipzig.*
A mathematical consideration of the subject of bird-flight helped out by diagrams.

MILLAIS, JOHN GUILLE [1865–].
1892. Game birds and shooting-sketches; illustrating the habits, modes of capture, stages of plumage, and the hybrids and varieties which occur amongst them. *4to. pp. xii+72. 34 pl. (16 col.). 30 figs.* *London.*
A shooting manual by this celebrated animal artist. Certain aspects of it are relieved by detailed accounts of the habits of the birds involved—the Capercaille, Blackcock, Grouse, and Ptarmigan in the British Isles.

1902. (The) natural history of the British surface-feeding ducks. *4to. pp. xiv+107. 41 pl. (col.). 31 pl. (uncol.). index.* *London.*
A beautifully illustrated treatise. The present copy is No. 223 of a large paper edition limited to 600 copies.

1902–20. *See* VICTORIA HISTORY OF THE COUNTIES OF ENGLAND.

1904–6. The Mammals of Great Britain and Ireland. *3 vols. 4to. col. illust.* *London.*
Truly beautiful reproductions of this artist's best work, with the necessary letterpress.

1909. The natural history of the British game birds; illust. by Archibald Thorburn and J. G. Millais. *folio. pp. 11+142. 18 col. pl. 17 photogr. 2 text-figs. T. of c.* *London.*
This beautifully illustrated work on British game birds (especially of the Pheasants) may be regarded as a continuation of this author-illustrator's *Game Birds and Shooting-Sketches*, 1892. A full account of the species illustrated accompanies each plate and drawing.

1913. British diving ducks. Plates by Archibald Thorburn, O. Murray Dixon, H. Grönvold and the author. *2 vols. 4to.* Vol. I, *pp. xv+141. front. (col.). 31 pl. (21 col.; 8 photograv.; 2 collotype).* Vol. II, *pp. xii+164. front. (col.). 41 pl. (16 col.; 6 photograv.; 19 collotype). addend. index.* *London.*
A detailed monograph of the birds, the eggs, the young in down, and eclipse plumages. Four hundred and fifty copies of this beautiful book were printed, of which the present copy is No. 240.

MILLAR, GEORGE HENRY.
[**1785**?]. New, complete, and universal body, or system of natural history. *folio. pp. iv+618. 82 pl. (12 birds). index.* *London.*
A work that, according to the author, 'is far superior to every other publication of the kind hitherto published'.

MILLER, ALDEN HOLMES [1906–].
1928. The molts of the loggerhead shrike, Lanius ludovicianus Linnaeus. *8vo. pp. (2)+393–417. 4 figs. bibliogr.* *Berkeley, Calif.*
Author's reprint.

MILLER, CARRIE ELLA.
1904. With the Birds in Maine. *12mo.* *Lewiston, Me.*
[**1918**]. Birds of Lewiston-Auburn and vicinity. *8vo. pp. 80. 1 pl. index.* *Lewiston, Me.*

MILLER, GERRIT SMITH, *Jr.*
1907. The families and genera of Bats. *8vo. pp. 17+282. 14 pl. illust. text.* *Washington.*
This is the standard work of reference on the subject, and although one of a serial publication (*Bull. 57, U.S. Nat. Museum*) is here given a special reference because of its importance.

1912. List of North American Land Mammals, etc. (*Bull. U.S. Nat. Mus.*). *Washington.*

1924. List of North American recent mammals. (*Bull. U.S. Nat. Mus.*) *8vo. pp. xvi+673.* *Washington.*

******** and **RILEY,** J. H.
n.d. Mammals of the Bahama Islands. (*Geographical Society Magazine, Baltimore.*) *4to. pp. 371–84.*
Field notes by J H. Riley.

MILLER, *Mrs.* HARRIET (MANN) [1831–1918].
1885. Bird-ways, by Olive Thorne Miller [*pseud.*]. *8vo. pp. viii+227. index.* *Boston.*

1888. In nesting time; by Olive Thorne Miller [*pseud.*]. *8vo. pp. vi+275. index.* *Boston.*

1889. Bird-ways, by Olive Thorne Miller. *Boston.*
Reissue of 1885.

1892. Little brothers of the air. *12mo. pp. vii+271. index.* *Boston.*

1894. A bird-lover in the West. *8vo. pp. vii+278. index.* *Boston.*

1897. Upon the tree-tops. *8vo. pp. 245. 9 pl. index.* *Boston.*

1899. (The) first book of birds. *8vo. pp. viii+149. 20 pl. (8 col.). 20 figs. index.* *Boston.*

[**1901**]. The second book of birds. *8vo. pp. viii+209. 24 pl. (8 col.). append. index.* *Boston.*
A supplement to the *First Book of Birds*, 1899.

1903. True bird stories from my note-books. *8vo. pp. viii+156. front. (col.). 8 pl.* *Boston.*
The copy in hand is an autographed present from the author.

1904. With the birds in Maine. *16mo. pp. ix+300. front. (portr. inserted). index.* *Boston.*

MILLER, HUGH [1802–56].
1841. The Old Red Sandstone; or New Walks in an Old Field. *8vo. pp. 23+275. 10 pl.* *Edinburgh.*
The first edition of a work, now classed with the forgotten lore of science, that once bore the same relation to zoology as Paine's *Age of Reason* did to religious superstition. All lovers of truth for its own sake should be grateful to the reverent Scotsman whose works helped to place paleontology on an enduring basis.

MILLER, JOHN FREDERICK [1772–96].

1796. Cimelia Physica, etc. *folio. pp. 106. 60 col. pl.* *London.*

This rare work, the first edition of which (1776–92) is still rarer, fitly describes itself as consisting of 'figures of rare and curious Quadrupeds, Birds, etc., . . . engraved from the subjects themselves by J. F. Miller. With descriptions by G. Shaw'. The colored plates and figures are well executed.

MILLER, LEO E.

1918. In the Wilds of South America; six years of exploration. *8vo. pp. 424. 70 illust. map.* *New York.*

An unusually interesting account of South American flora and fauna.

MILLER, OLIVE THORNE. *See* MILLER, (*Mrs.*) HARRIET (born MANN).

MILLER, S. A.

1877. The American palaeozoic fossils. *4to. pp. 16+253.* *Cincinnati.*

MILLER, SAMUEL HENRY and **SKERTCHLY,** S. B. J.

1878. The Fenland, past and present. *8vo. pp. xxxii+649. front. (col.). 23 pl. (2 fold.). 3 maps (1 fold.). 31 figs. append. index.* *Wisbech.*

The permanent avian residents number 101, regular visitants 74, and rare and occasional visitants 69, a total of 244 species and subspecies.

MILLER, SARAH AMY.

1809. The birds in Latham's General synopsis, drawn and accurately coloured. *folio. pp. 77. 154 col. drawings. index.*

A beautifully colored set of 150 birds depicted in Latham's *General Synopsis of Birds*, 1781–5, including Supplements I, 1787, and II, 1801. The additional four drawings represent the Grey Wagtail, Black Duck, Ural Owl, and a Hybrid Grouse. There is a typed titlepage and index.

MILLER, WALDRON DE WITT.

1905. List of [160 species of] birds collected in southern Sinaloa, Mexico. Author's ed. (*Bulletin of the American Museum of Natural History*, vol. xxi, pp. 339–69, November 24, 1905.) *8vo.* *New York.*

1906. List of [132 species of] birds collected in northwestern Durango, Mexico. Author's ed. (*Bulletin of the American Museum of Natural History*, vol. xxii, pp. 161–83, June 2, 1906.) *8vo.* *New York.*

1908. A review of the Manakins of the genus Chiroxiphia. Author's ed. (*Bulletin of the American Museum of Natural History*, vol. xxiv, pp. 331–43, May 2, 1908.) *8vo. 1 pl. (col.). 1 fig.* *New York.*

1912. A revision of the classification of the kingfishers. *8vo. pp. 239–311. 2 pl.* (Nos. XXV, XXVI). *New York.*

Author's edition (*Bulletin of the American Museum of Natural History*, vol. xxxi, pp. 239–311, New York, Sept. 12, 1912). A much needed treatise on the internal and external characters of the species of Kingfishers. It is divided into two parts: (1) The Subfamilies of Alcedinidæ, and (2) the Genera of Cerylinæ. The present copy is an autographed presentation from the author to the Hon. John Lewis Child.

MILLER, WILLIAM JOHN CLARKE [1832–].

1899. Essays and nature studies with lectures. *8vo. pp. xv+220.* *London.*

Edited, with introduction, by H. Kirke Swann.

MILLET DE LA TURTAUDIÈRE, PIERRE AIMÉ [1783–1873].

1828. Faune de Maine et Loire. *2 vols. 8vo.* *Paris.*

MILLIN DE GRANDMAISON, AUBIN LOUIS [1759–1818].

1802. Éléments d'histoire naturelle. 3rd ed. *19 pl.* *Paris.*

1834. Éléments de Zoologie. *illust.* *Paris.*

MILLS, E. A.

1923. Wild Animal Homesteads. *illust.* *Garden City, N.Y.*

MILLS, THOMAS WESLEY [1847–1915].

1898. The nature and development of animal intelligence. *8vo. pp. xii+307. T. of c. index.* *London.*

MILNE EDWARDS, ALPHONSE [1835–1900].

1866. Remarques sur des ossements du dronte (Didus ineptus); nouvellement recueillis à l'Ile Maurice. *folio. pp. 28. pl. See also* EDWARDS, ALPHONSE MILNE. *Paris.*

1866–73. Recherches sur la Faune ornithologique éteinte des Îles Mascareignes et de Madagascar. *4to. pp. 147+28. 38 col. pl.* *Paris.*

1868–1909. *See* MISSION SCIENTIFIQUE AU MEXIQUE.

1872. Résumé des recherches sur les oiseaux fossiles. *8vo. pp. 7.* *Paris.*

One of the more important of the many contributions of this voluminous writer, the majority of which were published in zoological periodicals.

1875–1920. *See* GRANDIDIER, A., Histoire physique de Madagascar.

******** and **GRANDIDIER,** A.

1884. Histoire naturelle des Oiseaux de Madagascar. *Paris.*

A fundamental work on local African birds.

1885–91. *See* MISSION SCIENTIFIQUE DU CAP HORN.

1888–1906. Expéditions scientifiques du 'Travailleur' et du 'Talisman' pendant les années 1880, 1881, 1882, 1883. *8 vols. folio.* *Paris.*

One of the most famous of modern expeditions with a scientific purpose, with many reports on its zoologic aspects. The latter were mostly under the care of the author; later continued by Edmond Perrier. *See* 'TRAVAILLEUR' and 'TALISMAN'.

******** and **OUSTALET,** ÉMILE.

1893. Notice sur quelques espèces d'oiseaux actuellement éteintes qui se trouvent représentées dans les collections du Muséum d'histoire naturelle. *folio. pp. 68. 5 pl. (col.).* *Paris.*

These notes are of birds extinct within historic times, including the Bourbon parrot or mascarin; the Hackled Pigeon of Mauritius; the Bourbon starling (*Fregilupus varius*); the Labrador duck, finely illustrated; the Great Auk (not illustrated); the Black Emu of Decrès Island, Australia. Autographed copy by É. Oustalet.

MILNE EDWARDS, HENRI [1800–85] and **others.**

1846. Corso elementare di storia naturale dai signori F. S. Beudant, Milne Edwards e A. de Jussieu; [from the French by Carlo Porro]. Vol. I. *8vo.* *Milano.*

An Italian rendering of H. Milne-Edward's *Élémens de Zoologie*, 1837. The copy in hand is vol. I, *Zoologia, da Milne Edwards.*

MILWAUKEE NATURALIST. **1886.** *Milwaukee.*

MINAGGIO, DIONISIO.

1618. Feather Book; contents, 165 pictures made mostly of feathers. Numerous complete bird-skins and pictures of other objects. *superfolio.*

The pictures were made about the time of Shakespeare by a man named Dionisio Minaggio, the gardener to the Governor of Milan. The book has a title-page bearing an inscription. Individual pictures made of feathers have been known but no such collection as this, bound in one volume, is in any of the large libraries. For this reason alone it is unique.
The contents of the volume embrace three classes of pictures; first, a series on hunting and bird catching; secondly, a series of characters of theatrical representations of the day, and lastly, the largest group, consisting of life-size pictures of a great variety of birds, large and small.
Authentic pictures of South American parrots and Arctic birds appear to show that this man in Italy must have been in close touch with the early navigators.
The pictures are not only of curious interest but have a twofold scholarly value. In the first place they give a good deal of information about the costumes and manners of the time, and in the second place, which is more important, they are in all probability the rarest examples of bird-skins in existence, owing to the particular way in which they were preserved. They retain their brilliance and even the beaks and claws are in good preservation. The necks of some of the birds have slightly deteriorated and in a few places the book has been damaged by damp.
As a scientific document it raises questions of the variation and distribution of birds of a period of which little is known.
The collection includes 156 specimens, song birds, birds of prey, domestic fowl, and aquatic birds, and altogether forms a very interesting series of examples of economic ornithology.

MINER, JACK [1865–].

1923. Jack Miner and the birds, and some things I know about nature. *8vo. pp. (16)+178. 55 figs. (2 maps).* *Toronto.*

Miner has been concerned principally with the semi-domestication, on his Canadian farm, of wild geese and ducks as they pass during the spring and fall migrations.

MINERVA LIBRARY OF FAMOUS BOOKS

1891. Narrative of an explorer in tropical South Africa, being an account of a visit to Damaraland in 1851 by F. Galton. *See* GALTON, F.

MINNESOTA ACADEMY OF SCIENCES. (Minn. Acad. of Natural Sciences.) *Minneapolis.*

1873–1917. Bulletin.

1894. Occasional papers.

MINNESOTA UNIVERSITY.

1920–30. Annual Report of Zoological Museum.

MINNS, G. W. *See* HAMPSHIRE FIELD CLUB, 1908–11.

MINOT, HENRY DAVIS [1859–90].

1877. The land-birds and game-birds of New England; with descriptions of the birds, their nests and eggs, their habits and notes. *8vo. pp. xvi+456. 22 figs. 7 append. 2 indexes.* *Salem, Mass.*

A popular work that has had several editions, written when the author was but 17 years of age; the biographies of the birds mostly from the author's personal observations. The appendices contain a number of Keys to the birds, their eggs, distribution, etc.

******** and **BREWSTER,** WILLIAM.

1895. The land-birds and game-birds of New England. 2nd ed. *8vo. pp. xxiv+492. 1 pl. 22 figs. 7 append. 2 indexes.* *Boston.*

1903. The land birds and game birds of New England. 3rd ed., revised by Brewster. *Boston.*

1925. *See* ROOSEVELT, THEODORE.

MIRAMICHI NATURAL HISTORY ASSOCIATION. *Chatham, N.B.*

1899–1913. Proceedings.

MISCELLANEA AUSTRIACA AD BOTANICAM, CHEMIAM, ET HISTORIAM NATURALEM SPECTANTIA. 1778–81. *Vienna.*

MISCELLANEOUS COLLECTIONS. *See* SMITHSONIAN INSTITUTION.

MISCELLANEOUS PUBLICATIONS OF THE AUSTRALIAN MUSEUM, SYDNEY. 1890–*date.*

MISCELLANIA CURIOSA DE AVIBUS. ?**1720.** *See* ANONYMOUS.

MISCELLANY OF EXOTIC NATURAL HISTORY. *See* DONOVAN, E., 1834.

MISSION SCIENTIFIQUE AU MEXIQUE ET DANS L'AMÉRIQUE CENTRALE.

1868–1909. Recherches Zoologiques . . . sous la direction de M. H. Milne Edwards. *13 vols. 4to.* *Paris.*

This well-known study of Central American natural history was issued in parts, some of the sections being still incomplete. Of the zoology, A. Duméril and Bocourt wrote (*pp. 860, 89 pl.*) on reptiles and batrachians. This part was not finished but was supplemented by P. Brocchi's contribution (*pp. 221, 21 col. pl.*) *Étude des Batrichiens de l'Amérique Centrale.* The *Étude sur les Poissons* was made by L. Vaillant and F. Bocourt.

MISSION SCIENTIFIQUE DU CAP HORN, 1882–3.

1885–91. *7 vols. 4to. illust.* *Paris.*

One of the most noted of the French governmental scientific expeditions, in which natural history (especially zoology) was well represented. Vol. VI is entirely devoted to the fauna; vol. VII to anthropology and ethnography. The report (part 1) on mammalia, *pp. 32, 8 pl.*, 1891, was made by A. Milne Edwards; on birds by É. Oustalet, *pp. 341, 6 col. pl.*, 1891; fishes by L. Vaillant, *pp. 35, 4 pl.*, 1888, and comparative anatomy by H. P. Gervais, *pp. 62, 5 pl.*, 1891.

MITCHELL, FREDERICK SHAW.

1885. The birds of Lancashire. Illustrated by J. G. Keulemans, Victor Prout, etc. *8vo. pp. xviii+224. map. list of subscribers. 3 figs. in text and 11 pl., 2 col. index.* *London.*

1892. The birds of Lancashire, revised and annotated by Howard Saunders, with additions by R. J. Howard and other local authorities. *8vo. pp. xxvi+271. map, fold. 5 pl. 7 figs. index.* *London.*

Second edition. A record of 259 species.

MITCHELL, JOHN M.

1864. The herring, its natural history and national importance. *8vo. pp. 12+372. 6 pl.* *Edinburgh.*

MITCHELL, MASON.

1909. Birds of Samoa, a manual of ornithology of birds inhabiting these islands. Typescript. *8vo. pp. 3+42+2. index.* *Malua, Samoa.*

Obtained through the courtesy of Miss M. E. McLellan, formerly of Samoa, now of the California Acad. of Sciences. This lady kindly typed the above useful pamphlet and presented it to the E.S.W. Library. The Compiler has thus been able to see a copy of a very rare monograph on the aves of Samoa, originally printed on the London Missionary Society's Press. Each species is carefully described under both its native and systematic name. There is no copy listed in the *Cat. Br. Mus. (Nat. Hist.).*

MITCHELL, PETER CHALMERS [1864–].

1900. Thomas Henry Huxley; a sketch of his life and work. *8vo. pp. xvii+297. 5 pl. (portr.). index.* *New York.*

Presentation copy from the author.

1912. The childhood of animals. *8vo. pp. xiv+269. 12 pl. (col.). 36 figs. index.* *London.*

1913. Die Kindheit der Tiere. Tr. by H. Pander. *Stuttgart.*

1920. Official guide to the gardens of the Zoological Society of London. Eighteenth edition. With 52 illustrations from photographs of animals now or recently living in the gardens, taken by F. W. Bond, F. Martin Duncan, and D. Seth-Smith. With a plan of the gardens, and a map showing railway and omnibus routes. *8vo. pp. xvi+110. front. (plan fold.). 2 pl. 50 figs. index.* *London.*

1929. Centenary history of the Zoological society of London. *8vo. pp. 11+307. 32 portr. chart. 9 plans.* *London.*

n.d. The pageant of nature. *3 vols. 8vo.* Vol. I, *pp. viii+576. 8 pl. (col.). figs. in text.* Vol. II, *pp. viii+577–992. 6 pl. (col.). figs. in text.* Vol. III, *pp. viii+993–1384. 9 pl. (col.). figs. in text. index.* *London.*

A compilation of British wild life by various writers. The wonders of bird life figure largely in these volumes, accompanied by several colored plates and innumerable text-figures. The present copy is one of an edition specially prepared for subscribers, the illustrations in color, sepia, and black and white, being exceptionally fine.

MITCHELL, THOMAS LIVINGSTONE [1792–1855].

1839. Three expeditions into the interior of eastern Australia. *2 vols. 8vo.* Vol. I, *pp. xxi+355. vignette. 21 pl. 16 figs. 1 map (col. fold.). T. of c. append.* Vol. II, *pp. ix+415. 29 pl. 21 figs. T. of c. append.* *London.*

MITCHILL, SINGLETON.

1803. Partial catalogue of the birds of New York made by [him] at Plandome, and communicated to Dr. Mitchill, in a letter dated July 4, 1803. *8vo. 8 ll.* *New York.*

Excerpt. A typed copy from the *Medical Repository*, Second Hexade, vol. ii, pp. 121 et seq. (New York), 1805. The rarity of this item may be inferred from its having entirely escaped Dr. Coues the veteran bibliographer, as well as its entire oversight by other bibliographers and writers on the Birds of New York, and especially of Long Island, where the author's observations were made. Further, this is the first bird-list of both Long Island and of New York State. Following the above list is an Appendix, *Reply to the Preceding Communication on the local nomenclature of Game Birds as used by Sportsmen.*

MITTEILUNGEN D. BERN NATURFORSCH. GESELLSCHAFT.

1823–*date*. Vol. 1– . *See* BERN.

MITTEILUNGEN DES BUNDES FÜR VOGELSCHUTZ E. V. *See* ZEITSCHRIFT FÜR VOGELSCHUTZ UND ANDERE GEBIETE DER NATURSCHUTZES. *Sitz Stuttgart.*

MITTEILUNGEN D. CREFELD NATURWISSENSCHAFTL. MUSEUM. **1909–19?** *See* CREFELD.

MITTEILUNGEN D. DEUTSCHE GESELLSCHAFT F. NATUR. U. VÖLKERKUNDE OSTASIENS, TOKYO. **1873–*date*.** *See* DEUTSCHE GESELLS. OSTASIENS.

MITTEILUNGEN D. DÜSSELDORF. NATURWISSENSCHAFTL. VEREIN.

1884–1913. Nos. 1–5 (all pub.)

MITTEILUNGEN ZUR GESCHICHTE DER MEDIZIN UND DER NATURWISSENSCHAFTEN. **1902–*date*.** *Hamburg.*

MITTEILUNGEN D. GRATZ. NATURWISSENSCHAFTL. VEREIN F. STEIERMARK. **1863–*date*.** *See* GRATZ.

MITTEILUNGEN D. GREIFSWALD. NATURWISSENSCHAFTL. VEREIN V. NEUVOR-POMMERN U. RÜGEN. **1869–*date*.** *See* GREIFSWALD.

MITTEILUNGEN AUS DER LIPPISCHEN GESCHICHTE UND LANDESKUNDE. (**Naturwissen. Verein f. d. Fürstentum Lippe.**) **1903–*date*.** *Detmold.*

MITTEILUNGEN D. MUSEUM FÜR TIERKUNDE UND VOLKERKUNDE ZU DRESDEN. **1875–8.** *See* DRESDEN.

MITTEILUNGEN D. NATURWISSENSCHAFTLICHE VEREIN ZU ASCHAFFENBURG. **1884–1907.**

MITTEILUNGEN D. NATURFORSCH. GESELLSCH. IN BERN. **1823–*date*.**

MITTEILUNGEN DER NATURFORSCH. GESELLSCHAFT IN SOLOTHURN. *Schweiz.*

1902–23. Heft 1–7.

MITTEILUNGEN D. NATURWISSENSCHAFT. GESELLSCHAFT IN WINTERTHUR.

1899–1927. Pts. 1–16.

MITTEILUNGEN DES ORNITHOLOGISCHEN KOMITEES DER KÖNIGLICHEN SCHWEDISCHEN. Akademie der Wissenschaften.

1887–92. Pts. 1–4 (all issued?). *8vo.* *Stockholm.* This is a *Bihang till K. Svenska Vet.-Akad. Handlingar.* The Compiler has seen as separate publications: 1. 1887. *pp. 182.* Edited by F. A. Smitt. 2–4. 1888–92. Published by C. R. Lundstrom. *Stockholm.*

A periodical of considerable scientific importance.

MITTEILUNGEN DES ORNITHOLOGISCHEN VEREINS IN WIEN. Blätter für Vogelkunde, Vogel-Schutz und -Pflege.

1877–97. [End.] Redacteure August von Pelzeln und Carl von Enderes. Vols. (Jahrgänge) I–XXI.

Irregularly issued but generally monthly and (later) quarterly. After 1888 continued as *Die Schwalbe.* This the most important of the Austrian journals devoted to ornithology had many changes in title, etc., and is best described (with some slight modifications and one correction) by the Library of Congress.

MITTEILUNGEN AUS DEM OSTERLANDE. (**Natur. Gesell. d. Oster. zu Altenburg.**) *Altenburg.*

1837–69.

1880–*date*. New series.

MITTEILUNGEN D. SECTION F. NATURKUNDE DES. OESTERR.
1889–1920. Touristen-Club. *22 bd.* *Wien.*

MITTEILUNGEN D. VEREINS F. NATURFREUNDE MIT SECTION VOGELSCHUTZ ZU DÖBELN.
1928–9. I, II.

MITTEILUNGEN DES VEREINS SÄCHSISCHER ORNITHOLOGEN.
1927–9. Nos. 1–4 (for Nos. 1–6).

MITTEILUNGEN AUS DEN VERHANDLUNGEN D. GESELLSCHAFT NATURFORSCHENDER FREUNDE, BERLIN.
1836–8. (All pub.) *See* GESELLSCHAFT . . . FREUNDE.

MITTEILUNGEN ÜBER DIE VOGELWELT. Blätter für Vogelkunde und Vogelschutz. Organ d. Süddeutsche Vogelwarte in Stuttgart.
1901–30. Jahrg. I–XXIX, index.

MITTEILUNGEN D. ZOOLOGISCHEN STATION D. NAPLES. 1876–1915. *See* NAPLES.

MITTERPACHER, L. *See* PILLER, M., 1783.

MITTHEILUNGEN DER AARAUISCH. NATURFORSCH. GESELLSCHAFT. *See* AARAU, 1878.

MITTHEILUNGEN DES ÖSTERR. Reichsbundes für Vogelkunde und Vogelschutz in Wien.
1901–13. Vols. (Jahrgänge) I–XIII. *4to.* [Suspended?] Press of Carl Fischer. Issued irregularly at first and then in monthly or fortnightly parts (of about 10 pages), the parts of the volume paged continuously. *Wien.*

The Compiler has been unable to obtain reliable information as to the further issues (if any) of this important South German periodical which combines the functions of a scientific and popular magazine. In its pages appear papers by many eminent zoologists. In this respect it ranks second in Austria to *Die Schwalbe* (q.v.).

MITTHEILUNGEN ÜBER DIE VOGELWELT. Early title (beginning with Jahrg. IV) of Mittheilungen des Österr. Reichsbundes, etc. (q.v.).

MIVART, ST. GEORGE JACKSON [1827–1900].
1873. Man and apes, an exposition of structural resemblances and differences bearing upon questions of affinity and origin. *8vo. pp. 6+200. 40 pl.* *London.*

1874. The common frog. *8vo. pp. 7+158. 1 pl. text-figs.* *London.*

1876. Lessons from nature, as manifested in mind and matter. *8vo. pp. xvi+462. index.* *London.*

1881. The cat. An introduction to the study of backboned animals, especially mammals. *8vo. pp. 23+557. illust.* *London.*

1890. Dogs, jackals, wolves, and foxes: a monograph of the *Canidae. 4to. pp. 36+216. 45 col. pl. text-figs.* *London.*

One of the finest monographs on the subject.

1892. Birds; the elements of ornithology. *8vo. pp. 8+329. 174 text-figs. index.* *London.*

A well arranged, semi-popular work on the subject, making an excellent and concise manual for the student.

1893. Types of animal life. *8vo. pp. viii+374. 103 figs. T. of c.* *London.*

There was a second (unchanged) printing in 1894.

1896. A monograph of the lories, or brush-tongued parrots, composing the family *Loriidæ. 4to. pp. 53+193. 61 pl. (col.). 19 figs. 4 maps (col.). index.* *London.*

An excellent treatise, with beautiful hand-colored plates by J. G. Keulemans, and special maps to show the distribution of the family Loriidæ and its component genera.

MÖBIUS, KARL AUGUST [1825–1908].
1893. *See* DEUTSCH-OST-AFRIKA, 1893–*date*.

1894–8. Der Thierwelt Ost-Afrikas, etc. *4 vols. 4to. many pl.* Vol. I. Säugetiere by P. Matschie; Vögel by A. Reichenow; Reptilien und Amphibien by G. Tornier; Fische by G. Pfeffer. *Berlin.*

1896. Die Thierwelt Ost-Afrikas und der Nachbargebiete. Wirbelthiere. Vol. I. Vögel. *4to. pp. (2)+250. 108 figs. (44 col.). bibliogr. index.* *Berlin.*

The portion of the whole work devoted to birds, by Anton Reichenow. The number of species recorded is 728, with notes on their habits and distribution.

MOCADESSI, EL, D'AZZ-EDDIN.
1821. Les Oiseaux et les Fleurs, allégories morales, publiées en arabe, avec une traduction et des notes par Garcin de Tassy. *8vo.* *Paris.*

MODENA. Società dei Naturalisti etc. Annuario e Atti. Serie I–V.
1866–1922. 52 vols.

MOEHRING, PAUL HEINRICH GERHARD [1710–92].
1752. Avium genera, Auctore, etc. *8vo. pp. 88.* G. C. Rump. *Bremae.*

A rare, fundamental treatise on general ornithology, giving an annotated, systematic catalogue of 114 genera. A fascimile reprint of the (Amsterdam) 1758 edition has been issued by W. Junk of Leipzig.

1906. Geschlacten der Vögel. (Avium Genera.) *Berlin.*

A facsimile of the very rare 1752 edition.

MOERBE, JOHANNES.
1866. Der praktische Vogelfreund. *12mo. pp. 144. T. of c.* *Berlin.*

This scarce pamphlet describes, in popular manner, 94 foreign and domestic species of cage birds observed by him in Germany.

MOERCH.
1921. Undersoeg-fartoj for Trondhjems Biolog. Station. (Skibsbygning 1921.)

MOJSISOVICS, AUGUST, *Edler von Mojsvár* [1857–97].
1884. Erster Nachtrag zur 'Ornis' von Béllye und Dárda. *4to. pp. 11.* *Graz.*

MOLANDER, A. R.
1928. Animal Communities in Gullmar Fjord. *Stockholm.*

An excerpt from the reports of the Swedish Kristineberg Zoological Station No. 2.

MOLINA, GIOVANNI IGNAZIO [1740–1829].

1782. Saggio sulla storia naturale del Chile. *8vo. pp. 367. 1 map. Bologna.*

A classic essay (of which this is the first edition) by the Abbé Molina, on the natural history of Chile. It has been reprinted and translated many times, and has furnished much of our early information regarding the vertebrate zoology of South America.

1789. Essai sur l'histoire naturelle du Chili. *8vo. pp. 16+351. Paris.*

A French translation of the original Italian edition of 1782, with notes by M. Gruvel.

1808. The geographical, natural and civil history of Chili. With notes from the Spanish and French versions, and an appendix containing copious extracts from the Araucana of Don Alonzo de Ercilla. Tr. from the original Italian by R. Alsop. *2 vols. 8vo.* Vol. I, *pp. xii+271. 1 map (fold.). T. of c. addend.* Vol. II, *pp. viii+305. T. of c. addend. Middletown (Conn.).*

1810. Saggio sulla storia naturale del Chile. 2nd ed. *folio. pp. 306. map. Bologna.*

This is a very accurate work written in a very agreeable style. Libro IV (pp. 172–276) deals with the animals of Chili. The author observes the special fondness of the Puma for horseflesh, confirmed by later writers (e.g. W. H. Hudson). Molina was born in Chili and subsequently settled in Italy.

MOLINEUX, HENRY GISBORNE KING.

1930. A Catalogue of Birds, giving their Distribution in the Western Portion of the Palaearctic Region. (With a bibliography.) Pt. I. *pp. 4+128. Eastbourne.*

The first instalment of a valuable, painstaking addition to the zoogeography of birds in an important section.

MOLLTONI, EDGARDO and **VANDONI,** CARLO.

1931. Gli Uccelli d'Italia. *4to. pp. 768. 16 col. pl. 260 text-figs. index. Milano.*

To be published in 48 parts, the treatise being based on G. Martorelli's work of the same title, 1906. It may be regarded as a revised edition of that popular textbook.

MOLYNEUX, THOMAS [1661–1733]. **1726–55.** *See* BOATE, GERARD.

MONACO. Institut Océanographique.

1909–17. Annales.

1924–*date.* Annales. New series.

1904–*date.* Bulletin.

MONATSBLATT DES BADISCHEN VEREINES FÜR GEFLUGELSUCHT.

1872–6. Jahrg. 1–5. Suspended (?). *4to. Karlsruhe.*

The periodical is listed as No. 2840 in the Harvard Library Catalogue of Serials and is (by others) said to have published papers of scientific value.

MONATSHEFTE FÜR DEN NATURWISSENSCHAFTLICHEN UNTERRICHT ALLER SCHULGATTUNGEN. *See* NATURWISSENSCHAFTLICHE MONATSHEFTE FÜR DEN BIOLOGISCHEN . . . UNTERRICHT.

MONATSSCHRIFT [ORNITHOLOGISCHE] DES DEUTSCHEN VEREINS ZUR SCHUTZE DER VOGELWELT. *See* MONATSSCHRIFT DES SÄCHSISCH-THÜRING. VEREINS F. VOGELKUNDE, etc.

MONATSSCHRIFT DES SÄCHSISCH-THÜRINGISCHEN VEREINS FÜR VOGELKUNDE UND VOGELSCHUTZ ZU HALLE A. D. SAALE.

1876–1930. Vols. 1–55. *illust. index to vols.* Editors, E. von Schlechtendal, W. Thienemann, Carl Hennicke, and others. Supplements and Registers.

This important, useful, and popular periodical has maintained its early promise for over 46 years and has done much to preserve and cultivate bird life in Germany, both as the organ of numerous societies and independently. During its long life it has published contributions—many of scientific interest and value—from most of the contemporary ornithologists. It is the oldest and probably the best (German) journal of its class.

MONCKTON, CHARLES ARTHUR WHITMORE.

1921. Some experiences of a New Guinea resident magistrate. 3rd ed. *8vo. pp. x+337. 36 pl. 1 map (fold.). index. London.*

1921. Taming New Guinea; some experiences of a New Guinea resident magistrate. *New York.*

The American edition, with changed title.

1922. Last days in New Guinea; being further experiences of a New Guinea resident magistrate. *8vo. pp. x+287. 55 pl. 2 maps (col. fold.). index. New York.*

A companion volume to the author's *Some Experiences of a New Guinea Resident Magistrate.* In this account there are numerous references to animals, e.g. Birds of Paradise, Bower birds, Cockatoos, the Skylark, Cassowaries, etc., and an account of the fauna of Mt. Albert Edward.

MONCONYS, BALTHASAR DE [1611–65].

1665–6. Iovrnal des voyages de Monsievr de Monconys . . . Où les sçauants trouueront vn nombre infini de nouueautez . . . outre la description de diuers animaux & plantes rares, plusieurs secrets inconnus. *Editio princeps. 3 vols. 8vo. illust. Lyon.*

A very rare and valued account of voyages, in the course of which many animals are described. A second edition in 1677 and several others were also published.

MONCRIEFF, ASCOTT ROBERT HOPE [1846–?1915].

1925. Animals that work [for man]; or, Beasts of business. *12mo. pp. vii+244. front. (col.). T. of c. London.*

First published in 1909.

MONCRIEFF, PÉRRINE.

?1926. New Zealand birds and how to identify them. *12mo. pp. 10+92. Auckland.*

MONET, JEAN BAPTISTE PIERRE ANTOINE DE. *See* LAMARCK, J. B.

MONITORE ZOOLOGICO ITALIANO.

1890–*date.* (Pubblicazioni Italiane di Zoologia, etc. . . . Instituto anatomico della R. Università di Siena.) *8vo.* (Wanting.) *Firenze.*

Many papers of great value to students of vertebrate zoology have appeared in this important journal since its first issue. Anno XL is 1930.

MONOGRAPHS OF AMERICAN SOCIETY OF MAMMALOGISTS. *See* AMERICAN SOCIETY OF MAMMALOGISTS.

MONRO, ALEXANDER *Secundus* [1733–1817].

1785. The Structure and Physiology of Fishes compared . . . with Man and other Animals. *folio. pp. 128. pl. 44.* *Edinburgh.*

A treatise of much value (founded on actual dissections) considering the time in which it was written.

? 1790. Manuscript, written in the second half of the 18th cent. Lectures on Anatomy and Comparative Anatomy. *3 vols.*

This well-known writer and lecturer was much interested in comparative zoology. The manuscript (in the Osler Library) was probably written by the author's own hand.

MONTAGU, GEORGE [1751–1815].

1802. Ornithological dictionary; or, Alphabetical synopsis of British birds. 1st ed. *2 vols. unpaged. 8vo. illust. append. glossary.* *London.*

Coues greatly admired this early dictionary and calls it 'a vade mecum which has held its place at a thousand elbows for three-quarters of a century'. The author published a supplement eleven years later and there were several subsequent editions and reprints.

1813. Supplement to the Ornithological Dictionary, or synopsis of British birds. *8vo. title and pp. vi. no textual pag. 24 col. pl. appendix, with addenda and errata.* *London.*

This supplementary volume has (rare) colored plates and is a presentation copy to Mr. Foljambe by the author 'as a mark of his esteem'. The present copy is from the library of H. C. Oberholser.

1831. Ornithological dictionary of British birds. With a plan of study, and many new articles and original observations, by James Rennie. 2nd ed. *8vo. pp. 40+592. illust.* *London.*

A reissue of the first edition. It was followed by an identical impression in 1833.

1833. Ornithological dictionary of British birds. *London.*

Identical with the 1831 edition.

1866. A dictionary of British birds. Reprinted from Montagu's Ornithological dictionary, and incorporating the additional species described by Selby; Yarrell, in all three editions, and in natural-history journals . . . by Edward Newman. *8vo. pp. 24+399.* *London.*

[**1882** or **1889**]. A dictionary of British birds being a reprint of Montagu's Ornithological Dictionary together with the additional species described by Selby; Yarrell in all three editions; and in Natural-History Journals. Compiled and Edited by Edward Newman. *1 vol. and supplement. 8vo. pp. xxiv+400.* *London.*

Another of the numerous issues of the celebrated dictionary. The copy in hand is from the Mullens Library.

MONTANA UNIVERSITY. Bulletin.

1901–10. Biological Series 1–15 (all pub.).

MONTEIRO, JOACHIM JOHN [d. 1878].

1875. Angola and the river Congo. *2 vols. 8vo.* Vol. I, *pp. viii+305. front. (map fold.). 9 pl. T. of c.* Vol. II, *pp. iv+340. 7 pl. append. index.* *London.*

MONTES DE OCA, RAFAEL.

1875. Ensayo ornitológico de los troquilideos ó colibríes de México. *folio. pp. (4)+60. front. (portr.). 12 pl. (col.). index.* *Mexico.*

Humming-birds of Mexico; 48 species are enumerated and 46 of them are illustrated in colors. Presentation copy from author with autograph.

MONTEVIDEO. *See* MUSEO NACIONAL DE MONTEVIDEO.

MONTHLY AMERICAN JOURNAL OF GEOLOGY AND NAT. SCIENCE.

1831–2. Nos. 1–12 (all pub.). *Phila.*

MONTHLY MICROSCOPICAL JOURNAL.

1869–77. *See also* ROYAL MICROSCOPICAL SOCIETY. *London.*

MONTI, MAURIZIO.

1845. Catologo e notizie compendiose degli uccelli di stazione e di passaggio nella città provincia e diocesi di Como e loro Comasca sinonimia. *12mo. pp. 14+47.* *Como.*

This rare little work—*fuori di commercio*—lists and briefly describes the birds of the province of Como, giving their scientific, Italian, and local names. The copy in hand was presented to M. Michelin by the author.

MONTPELLIER UNIVERSITÉ. Institut de Zoologie.

1873–85. Travail.

1885–*date*. Travail. New series.

See also STATION ZOOLOGIQUE DE CETTE, NANCY UNIVERSITÉ.

MONTPELLIER UNIVERSITÉ. Institut de Zoologie Maritime.

1903–*date*. Mémoires.

MONTREAL NATURAL HISTORY SOCIETY.

1846. Catalogue of the library and museum. *8vo. pp. 40.* *Montreal.*

Catalogue of the Society's library consisting of some eight or nine hundred volumes on natural history in general, voyages, biographies, and scientific periodicals, etc., acquired by McGill University.

1859. Constitution and by-laws; also, A list of the officers, corresponding and honorary, life and ordinary members of the society, May 1859. *8vo. pp. 31.* *Montreal.*

The By-Laws, etc., of this Society, which was founded in 1827, incorporated in 1832; it had unfortunately ceased to exist just previous to 1927, the whole of the collections being taken over by the Redpath Museum, of McGill University.

1886. Constitution and by-laws, with the amending act. *pp. 24.* *Montreal.*

MONTROUZIER, XAVIER [1820–97].

1857. Essai sur la Faune de l'île de Woodlark ou Moiou. *4to. pp. 226+7.* *Lyon.*

MOODY, JULIA and **MARKS,** J. A.

1910. A holiday with the birds. *See* MARKS, J. A. and MOODY, JULIA.

MOORE, FREDERIC [1830–1907] and **HORSFIELD,** T.

1854–8. A catalogue of the birds in the Museum of the Hon. East-India Company. *See* HORSFIELD, T. and MOORE, F.

MOORE, GEORGE PETER.

1879. British birds systematically arranged, [with] the geographical range of 376 species. *folio. pp. 15. 5 tab. (fold.).* *London.*

MOORE, JOHN [d. 1737].
1765. A Treatise on domestic Pigeons, etc. *See* ANONYMOUS, A Treatise, etc.

1858. [Columbarium, &c.] *See* EATON, J. M., A treatise on the art of breeding . . . pigeons, &c.

1879. Moore's Columbarium; or, The pigeon-house: being an introduction to a natural history of tame pigeons, giving an account of the several species known in England, with the method of breeding them, their distempers and cures (reprinted verbatim from the original edition of 1735, with a brief notice of the author, by W. B. Tegetmeier). *4to. pp. vi+xiv+60. glossary.* *London.*

Original copies of Moore are of the greatest rarity; beyond the four existing in the library of the British Museum two other copies only are known. The present reprint is said to be an exact reproduction of the original of 1735. After the reprint was made, some minor misprints were discovered, these being noted and corrected in the introduction by Mr. Tegetmeier. The *Columbarium* of Moore is the earliest English work giving a description of the different varieties of the domestic pigeon. Eaton incorporated the work into his *Treatise on the art of breeding and managing Fancy Pigeons*, 1858, with the addition of copious footnotes, either his own, or else extracted from other authors, to whom due credit is given.

MOORE, JOHN EDWARD SHOREC.
1901. To the Mountains of the Moon, being an account of the modern aspect of Central Africa [including the fauna], etc. With illustrations and maps. *8vo. pp. xvi+350. front. (col.). 18 pl. (5 fold.). 68 figs. 3 maps (1 col., 2 fold.). index.* *London.*

1903. The Tanganyika problem; an account of the researches undertaken concerning the existence of marine animals in Central Africa. *8vo. pp. 23+371. 2 col. pl. 7 col. maps. figs. in text.* *London.*

MOORE, JOHN HAMILTON. *See* DAMPIER, WILLIAM, 1780.

MOQUIN-TANDON, CHRISTIAN HORACE BÉNÉDICT ALFRED [1804–63].
1835–44. *See* WEBB and BERTHELOT, 1835–44.

1857–8. *See* BONAPARTE, C. L. J. L.

1861. Elements of medical zoology. From the French by R. T. Hulme. *8vo. pp. 14+423. illust.* *London.*

1863. *See* CLAUS, C. F. W.

MORAVSKA PŘÍRODOVĚDECKA SPOLEČNOST, BRÜNN.
1924–*date*. Prace.
Latin title: Societas Scientiarum Naturalium Moraviae.

MORDEN, WILLIAM JAMES [1886–].
1927. Across Asia's snows and deserts. *8vo. pp. 14+415. 65 pl. 2 append. index.* *New York.*

An account of the Am. Mus. of Nat. History (Morden-Clark) Asiatic expedition of 1926. References to bird and other animal life are frequent and of great interest.

MORE, ALEXANDER GOODMAN [1830–95].
1860. Outlines of the natural history of the Isle of Wight. *8vo. pp. 107.* *London.*

Extracted, with a special title, from Venables' *New Guide to the Isle of Wight.*

1882–7. Report on the migration of birds in the spring and autumn of 1881–(86). *See* HARVIE-BROWN, J. A. and others.

1885. A list of Irish birds showing the [232] species contained in the Science and Art Museum, Dublin. *8vo. pp. 32.* *Dublin.*

1887. Science and Art Museum, Dublin. Guide to the natural history department. Series I. Vertebrate animals. Pt. I. Mammals and birds. *8vo. pp. 38.* *Dublin.*

1890. A list of Irish birds showing the species contained in the Science and Art Museum, Dublin. 2nd ed. *8vo. pp. 38.* *Dublin.*

MOREAU, H.
1891. L'Amateur d'Oiseaux de Volière.

MORENO, FRANCISCO JOSUÉ RASCASIO [1852–1919].
1890. Le Musée de La Plata. 'Traduit de la *Revista del museo*, tome 1, 1890.' *8vo. pp. 31. 8 pl.* *Buenos Ayres.*

MORGAN, A. M.
1924. An ornithological trip round Eyre peninsula. *See* SUTTON, J., 1924.

MORGAN, CONWY LLOYD [1852–].
1891. Animal life and intelligence. *8vo. pp. 16+512. pl.* *Boston.*

[1891]. Animal sketches. *8vo. pp. (6)+312. front. 7 pl. 60 figs. T. of c.* *London.*

1900. Animal Behaviour.

1912. Instinct and Experience.

MORGAN, THOMAS HUNT [1866–].
1907. Experimental zoölogy. *8vo. pp. xii+454. 25 figs. index.* *New York.*

1919. The Mechanism of Mendelian Heredity. *New York.*

A work specially recommended to the student.

1927. Experimental embryology. *8vo. pp. xi+766. 263 figs. index.* *New York.*

MORIKUNI, TACHIBANA.
ca. **1768.** Animal Sketches. Arranged in European Order. Vol. IX.

MORPHOLOGISCHE ARBEITEN. *Jena.*
1891–8. Continued as Zeitschrift für Morphologie und Anthropologie.

MORPHOLOGISCHES JAHRBUCH. *See* GEGENBAURS MORPHOLOGISCHES JAHRBUCH.

MORRELL, GEORGE HERBERT.
[1870]. The Student's manual of comparative anatomy, and guide to dissection: being an introduction to the study of the structure and classification of recent animals. Pt. II. Sauropsida. Section I. Aves. *8vo. pp. viii+75. T. of c.* *Oxford.*

MORRIS, Beverley Robinson.

1855. British game birds and wild fowl, with 60 hand-coloured plates. 1st ed. *4to.* *London.*

? 1864. British game birds and wildfowl. *4to. pp. iv+254. 60 hand-col. pl. T. of c.* *London.*

There were at least four editions or printings of this well-illustrated book, written by a brother of the Rev. F. O. Morris. The copy in hand is undated and may have been any of the (identical) works issued between 1855 and 1873, although most of these appear to have *pp. iv+252* instead of *pp. iv+254*. The author, a medical practitioner and editor of *The Naturalist*, emigrated to America in 1856.

1891. British gamebirds and wildfowl. With sixty plates, coloured by hand. 3rd ed. *4to. pp. vi+272. 60 pl. (col.). T. of c.* *London.*

MORRIS, Francis Orpen [1810–93].

1851–7. A history of British birds. *6 vols. 8vo.* Vol. 1, *pp. iv+364. 59 pl. (col.).* Vol. 2, *pp. iv+360. 60 pl. (col.).* Vol. 3, *pp. iv+391. 59 pl. (col.).* Vol. 4, *pp. iv+330. 62 pl. (col.).* Vol. 5, *pp. iv+315. 57 pl. (col.).* Vol. 6, *pp. xi+290. 60 pl. (col.). index.* *London.*

A popular account of British birds gathered from various sources, some of it unfortunately unreliable. The plates (357) are hand-colored and fairly good. The work was brought out in monthly parts. Mullens and Swann record three reissues of this the first edition, four revised editions, and two cabinet editions, which goes to prove how very popular the work must have been at the time, especially with amateur ornithologists and taxidermists who identified their finds by means of the colored plates.

1853. Book of natural history containing a description of animals and birds. *8vo. pp. 4+318. 160 pl. (col.). T. of c.* *London.*

1853–6. A natural history of the nests and eggs of British birds. *3 vols. 8vo.* Vol. I, *pp. iv+156. 76 pl. (col.).* Vol. II, *pp. 148. 72 pl. (col.).* Vol. III, *pp. (4)+140. 74 pl. (col.). index.* *London.*

At the end of vol. III there are three extra plates bound in, Nos. 40, 49, and 62. The early editions of this work are far superior in coloring to modern copies.

1860. Anecdotes in natural history. 3rd ed. *8vo. pp. 112. 48 figs. T. of c.* *London.*

1863–7. A history of British birds. *8 vols. 8vo.* *London.*

The first issue of the two cabinet editions of the original first edition. The copy in hand contains 358 plates, the extra one being that of the Mottled Owl, a bird of which there was no record when the first edition was published.

1864. A natural history of the nests and eggs of British birds. *3 vols. 8vo.* Vol. I, *pp. iv+156. 78 pl. (col.).* Vol. II, *pp. iv+148. 76 pl. (col.).* Vol. III, *pp. iv+140. 71 pl. (col.). index.* *London.*

The present edition appears to be a reissue of that published in 1853–6, as it is not mentioned by Mullens and Swann, who give the date of the second edition as 1875. The present copy contains 223 colored plates only—the correct number for the first edition—although the title-pages state 225, the difference arising in vol. I, which is said to contain 78 plates, whereas there are only 76 as bound.

1879. Letters to the 'Times' about birds, etc. *8vo. pp. [2]+268.* *London.*

Presentation copy from author.

[1882]. All the articles of the Darwin faith. *8vo. pp. 99.* *London.*

[1888]. A history of British birds. *8 vols. 8vo. many col. pl.* *London.*

A reissue of the 1863–7 cabinet edition. The plates are not as well colored as in the first issue. Among errors, the plate of the Long-tailed Tit bears the title Spotted Flycatcher!

1895–7. A history of British birds. 4th ed. *6 vols. 8vo.* *London.*

The fourth printing of the original edition of 1851–7. It contains 37 extra hand-colored plates (in all 394) as well as a revision, correction, and enlargement of the text.

******** and **TEGETMEIER,** W. B.

1896. A natural history of the Nests and Eggs of British Birds. 4th ed. *3 vols. 8vo.* Vol. I, *pp. xix+178. 85 pl. (col.). 5 figs.* Vol. II, *pp. viii+155. 84 pl. (col.).* Vol. III, *pp. xi+207. 82 pl. (col.). index.* *London.*

The text of this edition is altered from that of 1853–6 and of 1864 (q.v.). The numbering of the plates is much the same as the originals, although executed in a very inferior manner. The introduction is by Tegetmeier, who is responsible for the many changes in the work.

1903. A history of British birds. *6 vols. 8vo.* *London.*

Differing from the fourth edition, 1895–7, by the addition of six extra plates, as well as by the revision of the coloring of the whole 400. A number of new species are described in the Appendix.

MORRIS, John [1810–86].

1854. A catalogue of British fossils: comprising the genera and species hitherto described. 2nd ed. *8vo. pp. vii+372. index.* *London.*

The first edition was issued in 1843.

MORRIS, Marmaduke Charles Frederick.

1897. Francis Orpen Morris; a memoir, by his son. *8vo. pp. ix+323. front. (portr.). 2 append. index.* *London.*

MORRIS, Max.

1905–7. Schriften zur Naturwissenschaft. *See* Goethe, J. W.

MORRIS, Robert Oliver.

1901. The birds of Springfield and vicinity. *8vo. pp. 54. map. index.* *Springfield, Mass.*

An annotated list of the birds known to have occurred within 25 miles of Springfield, Massachusetts.

MORRIS, Robert Tuttle [1857–].

1896. Hopkins's pond and other sketches. *8vo. pp. viii+(2)+227. front. T. of c.* *New York.*

MORRIS, Stanley.

1925. Bird-song; on the songs and notes of some British birds. *12mo. pp. ix+134. 2 figs. 2 indexes.* *London.*

A manual of bird-song with numerous tables giving average song periods of species which resume their song in autumn, and those which do not; earliest, latest, and mean dates of commencement of song, earliest and latest recorded dates of song periods, merits of song performance, and of birds which sing at night-time, on the wing, on the ground, and those which sing in concert.

MORSE, Albert Pitts [1863–].

1897. Annotated list of [244] birds of Wellesley and vicinity; comprising the land-birds and most of the inland water-fowl of eastern Massachusetts. *8vo. pp. 56. addend. index.* *Wellesley, Mass.*

1912. A pocket list of the birds of Eastern Massachusetts. *Salem, Mass.*

MORSE, Edward Sylvester [1838–].

1868. *See* American naturalist.

1872. On the tarsus and carpus of birds. (*Annals of the Lyceum Natural History*, New York, vol. X, 1872.) *8vo. pp. 22. 2 pl. (fold.). 8 figs.* Author's reprint. *Salem.*

The object of this paper is to throw light upon the number and condition of the tarsal and carpal bones in birds. Autographed copy by the author.

MORSE, GEORGE BYRON.
1910. Pheasant raising in the United States. *See* OLDYS, HENRY.

MORSE, RICHARD.
1925. The natural history of Hertfordshire. *See* WILMORE, A.

[**1926**]. Wild plants and seeds for birds; an illustrated dictionary of the best foods for use in the aviary. *12mo. pp. [4]+110.* *London.*

MORTON, JOHN [?1671–1726].
1712. The natural history of Northamptonshire. *4to. pp. iv+551. 14 pl. 1 map (fold.). 2 indexes.* *London.*

MORWOOD, VERNON S.
1883. Facts and phases of animal life. *8vo. pp. xvi+286. 75 figs. T. of c. glossary.* *New York.*

MOSCARDO, LODOVICO.
1656. Note overo memorie del Museo di L. Moscardo. E in tre libri distinte. Nel Terzo de Corali, Conchiglie, Animali, Frutti, & altre cose in quello contenute. *folio. illust.* *Padova.*
A rare and curious treatise, in Dean Adams's Library.

MOSCOW.
1868–1913. Bulletin de la Société Impériale des Naturalistes. New series.

MOSELEY, HENRY NOTTIDGE [1844–91].
1892. Notes by a naturalist; an account of observations made during the voyage of H.M.S. 'Challenger' round the world in the years 1872–1876. New and revised ed. *8vo. pp. 24+540. portr. illust. map.* *London.*

MOSENTHAL, JULIUS DE and **HARTING,** J. E.
1877. Ostriches and ostrich farming. *8vo. pp. xxi+246. 8 pl. 20 figs. append. index.* *London.*
First edition. The second edition of this illuminating treatise on ostrich farming in South Africa was issued in 1879.

MOSLEY, F. O. **1915.** *See* MOSLEY, SETH LISTER.

MOSLEY, SETH LISTER [1848–?1920].
1884–[92]. A history of British birds, their nests, and eggs. *2 vols. 8vo.* *Huddersfield.*
This is a scarce treatise, systematically arranged, on British birds. Mullens and Swann (*Bib. of British Ornith.*, p. 421) state that the work was intended to form five volumes, but only the first two and part of volume three appeared. Their collation conforms exactly to the copy in hand (in the original wrappers) as follows:
'Vol. I [II]. Indigenous Land Birds; [Vol. III. Indigenous Waders.] Huddersfield: [1881]–92. Issued in "monthly" parts, 8vo. 69 nos. were published in 59 pts. (irregularly). Vol. I, with title dated 1884, contains pl. 1–56 of birds and 56 pl. of eggs, with leaf of text for each bird. Vol. II, dated 1887, pl. 57–116 of birds+eggs pl. 57–98, and text to each bird. Vol. III (unfinished and no title issued), pl. 117–57 and 160–63 of birds, 99–115 and 109 *bis* of eggs+text to each bird. It was published in two editions, "superior" and "ordinary". The issue of parts commenced in 1881 and No. 69 is dated Jan. 1892. Plates 158 and 159 were never issued.'

1896. Annotated catalogue of British Birds, Nests and Eggs. Pt. I (all pub.). *8vo. pp. 50. 50 col. pl.* *Huddersfield.*
Probably based on the author's unfinished *History of British Birds*, from which the plates were taken. It is a rare item not mentioned by Mullens and Swann.

******** and **MOSLEY,** F. O.
[**1915**]. An Account of the Birds of the Huddersfield District. *1 vol. 8vo. 40 col. pl. 40 maps.* Issued privately to subscribers only. Original wrappers bound in.
This rare work was printed by the authors on a hand-press and issued in 20 parts, the 40 'crayon-watercolour plates' being prepared by a 'new hand-process'. The maps show the distributional areas of certain species—altogether a creditable and useful treatise on local ornithology.
The frontispiece is the portrait of the authors' father, a naturalist whose work and teaching inspired the production of the present volume.

MOSSOP, JOHN.
1841. Ornithologia Britannica; a synopsis of British land-birds in verse and prose. *8vo. pp. xviii+259. index.* *London.*

MOTLEY, JAMES [1814–92] and **DILLWYN,** L. L.
1855. Contributions to the natural history of Labuan, and the adjacent coasts of Borneo. *8vo. pp. 62. pl.* Pt. I (all pub.). *London.*

MOUHOT, ALEXANDRE HENRI [1826–61].
1864. Travels in the central parts of Indo-China (Siam), Cambodia, and Laos, during the years 1858, 1859, and 1860. *2 vols. 8vo. illust.* Vol. I, Wanting. Vol. II, *pp. viii+301. front. (fold.). 24 pl. (4 fold.). 9 figs. T. of c. append.* *London.*
The appendix to the second volume is devoted to vertebrates. A. Günther describes the mammals, reptiles, and fresh-water fishes. A few references are also made to avian species.

MOUSLEY, HENRY.
1911–28. Birds, orchids, ferns and butterflies of Hatley, Quebec. [*Province, Canada.*] *8vo. illust.*
This volume, sumptuously bound by Riviere, contains the contributions of a naturalist who has made of the eastern portion of Quebec province (old Lower Canada), with its flora and fauna, an intensive study for nearly 20 years.
He furnished during this period valuable, scientific accounts; *inter alia*, of the avian life of the area in numerous (reprinted) contributions, to *The Auk* in particular, but also to the *Canadian Field Naturalist*. Among the former are essays on 'The Singing Tree' (Oct. 1918), read before the Nuttall Ornithological Club, describing near-by perches of the melodious mates of nesting birds; the 'Home Life of Warblers', illustrated (1921); Birds of Hatley (*Auk*, Jan. 1, 1916), and more than 20 other papers on the local ornithology of Eastern Canada based on his personal observations. Mr. Mousley is also a well-grounded botanist and entomologist, valuable qualities in an investigator of all zoological questions. These publications now form Series 7, No. 19, 1930, *McGill University Publications.*

1918. Further notes and observations on the birds of Hatley, Stanstead county, Quebec, Canada. *8vo. pp. 289–310.* [*Cambridge, Mass.*]
Author's edition from the *Auk*, July 1918. A further contribution of this author's work on the birds of Hatley, a list annotated in considerable detail, over 160 species being recorded.

MOUTON-FONTENILLE DE LA CLOTTE, MARIE JACQUES PHILIPPE [1769–1837].
1811. Art d'empailler les oiseaux. *10 pl.* *Lyon.*

MOUY, G. and **BOUVET,** E.
1890. Vingt ans près d'une basse-cour; ou, L'élevage purement rationnel. 2nd ed. *8vo. pp. 211. 14 figs. T. of c.* *Forest.*

MUDGE, ISADORE GILBERT.
1929. New Guide to Reference Books. *8vo. pp. 12+370. index.* *Chicago.*
A useful publication of the *Chicago Library Association.*

MUDIE, ROBERT [1777–1842].
1835. The British naturalist. *2 vols. 8vo.* Vol. I, *pp. xii+374. 28 figs.* Vol. II, *pp. xi+389. 19 figs. index.* *London.*
Second edition. First anonymously published in 1830.

[**MUDIE,** R. (*contd.*)]

1835. The feathered tribes of the British Islands. *2 vols. 8vo.* Vol. I, *pp. xxiv+379. 10 pl. (col.). 15 figs.* Vol. II, *pp. (2)+391. 9 pl. (col.). 6 figs. London.*

Second edition of a popular work that, first issued in 1834, passed through many printings.

1841. The feathered tribes of the British Islands. 3rd ed. *2 vols. 8vo. London.*

Practically identical with the second edition, 1835.

1854. The feathered tribes of the British Islands. *2 vols. 8vo.* Vol. I, *pp. xxiv+422. front. (col.). 13 pl. (col., 4 of eggs). 14 figs.* Vol. II, *pp. (6)+440. 12 pl. (col., 3 of eggs). 5 figs. index. London.*

An enlarged and revised edition of the first issue of 1834, edited by W. C. L. Martin. The illuminated title-pages in the present edition bear the date 1853; the full title-pages, 1854, the two volumes forming Nos. 28 and 29 in Bohn's Illustrated Library.

1861. (The) feathered tribes of the British Islands. *2 vols. 8vo.* Vol. I, *pp. xxiv+422. 13 pl. (4 of eggs). 14 figs.* Vol. II, *pp. (6)+440. 11 pl. (3 of eggs). 5 figs. index. London.*

This (fourth) edition differs only from that of 1854 in having plain, instead of colored plates.

1878. The feathered tribes of the British Islands. *2 vols. 8vo. London.*

This edition differs in no way from that of 1861. At least three differently dated printings of this work are entitled 'Fourth Edition'.

MUENCHENER VEREIN FÜR NATURKUNDE. *See* ISIS. MUNICH.

MUENSTER. Universität.

1905–9. Morphologisches Arbeiten—Anatomisches und Zootomisches Institut.

1920–*date.* Jahrbuch—Philosophische und Naturwissenschaftliche Fakultät.

1918–21? Mitteilungen—Zoologisches Institut.

MUḤAMMAD ABDU'L-LAH.

1912. Faras-nāma. In Hindustani. A Book of the Horse. Four parts. Lithographed from the original 13th-century MS. *4to. pp. 184. 21 lith. cuts. Lucknow.*

There are two other copies of this work in the Blacker Library.

1912. 'Ilaju'l-fil. Diseases of the elephant. (Hindustani.) *pp. 184. lith. Lucknow.*

The Blacker Library has also a variant of the above.

MUḤAMMAD KARAMU'L-LAH. (Scribe, Amir Ali Sandili.)

1873. Shifa'u't-tayr. Treatise on falconry. Persian MS. *4to. ff. 186.*

This copy of the original, written in Mahkr in Birar between A.D. 1680 and 1692, gives a complete account of the training and other care of hunting falcons. The book is dedicated to the Emperor Aurangzeb and the present work is complete while several of the other known copies lack a number of pages. The original MS. was illustrated but this copy lacks the paintings, although spaces are left for them in the text.

MUḤAMMAD RIDA B. MUHAMMAD YUSUF.

1817. Dasturu's sayd. Baz-nāma. *4to. ff. 56.* A treatise on falconry and on birds in general. Persian MS.

Copy of an early MS. dedicated to Aurangzeb. Purchased in Amritzar.

MUḤAMMAD TAQĪ, *son of* **MUḤAMMAD TABRĪZĪ.**

1690. Khāwaṣṣu'l-ḥaywan. (In Persian.)

A study of the medicinal properties of mammals, birds, reptiles, fishes, and insects in the form of a dictionary. It was composed in honor of the royal naturalist, Abbas II of Persia. Copies are found in the British Museum, India Office, Bodleian, etc. The present copy lacks a portion of the preface. Purchased for the Blacker Library in Persia, Nov. 1928. [W.I.]

1858. A lithographed copy of the foregoing, printed in (?) Teheran. It is profusely if not very artistically illustrated and supplemented by a work on poetry.

This edition is extremely rare and is not found in any European library. It was bought in Persia for the Blacker Library. [W.I.]

MÜHLE, HEINRICH VON DER.

1844. Beitraege zur Ornithologie Greichenlands. *8vo. pp. viii+152. index. Leipzig.*

A classic and valuable contribution to modern Grecian ornithology. There is a full descriptive list of the avifauna, with a discussion of new forms. The work is quite rare.

1856. Monographie der europäischen Sylvien. Vol. I. *8vo. pp. 4+149. index.* Vol. II. Vier Tafeln zur Monographie der europäischen Sylvien. *atlas. 4to. 4 col. pl. Regensburg.*

A monograph, systematically arranged, on European warblers. The present copy is bound in two volumes with the original covers, from the Godman Library.

MUIR, JOHN [1838–1915].

1901. Our national parks. *8vo. pp. (10)+370. 12 pl. (1 map). index. Boston.*

A series of sketches first published in the *Atlantic Monthly*, dealing with the beauty and usefulness of wild mountain forests and their animals.

[**1902**]. Our national parks. *8vo. pp. (10)+382. 12 pl. (1 map). append. index. Boston.*

Differing from the first edition of 1901 in having an appendix (pp. 368–76) giving the names, location, and area, etc. of the National Parks and Forests in the United States and Alaska.

1911. (The) mountains of California. *8vo. pp. xiv+389. 17 pl. 50 figs. (4 maps). index. New York.*

Second edition, the first issued in 1894. Among the references to animal life is that of the Water-Ouzel (pp. 276–99) with five illustrations, depicting the general home life of that charming bird.

MUIRHEAD, GEORGE.

1889–95. The birds of Berwickshire. *2 vols. 8vo.* Vol. I, *pp. xxvi+334. 4 pl. 76 figs. map (col.). index.* Vol. 2, *pp. xii+390. 8 pl. 84 figs. 2 charts (1 col.). index. Edinburgh.*

MULLENS, WILLIAM HERBERT [1866–].

1908. A List of Books relating to British Birds, published before the year 1815. From the Library of W. H. Mullens, M.A., exhibited at the Corporation Museum, Hastings, during June 1906. Pamphlet. *8vo. pp. 1–34. 7 pl.*

This contribution to the bibliography of British bird literature is the author's edition of *Occasional Publications* No. 3 of the Hastings and St. Leonard's Natural History Society. It is reprinted with additions and corrections.

**** and **SWANN,** H. KIRKE.

(?) **1915.** A preliminary list of titles for Mullens and Swann's Bibliography of British Ornithology. *4to. pp. 1+10.* Privately printed.

1919. A bibliography of British ornithology from the earliest times to the end of 1912, including biographical accounts of the principal writers and

bibliographies of their published works. *8vo. pp. 20+691.* *London.*

A most useful and very important work of reference, issued in six parts. The Compiler is greatly indebted to this admirable cyclopedia for assistance in making this *Catalogue*. The copy in hand is a present to the E.S.W. Library from Mr. H. Kirke Swann. A supplement was published in 1923.

****, **SWANN**, H. KIRKE, and **JOURDAIN**, F. C. R.

1919–20. (A) geographical bibliography of British ornithology from the earliest times to the end of 1918, arranged under counties, being a record of printed books, published articles, notes and records relating to local avifauna. *8vo. pp. 8+558.* *London.*

This very valuable list of titles was issued in six sections, and deals with the local faunas of British ornithology.

**** and **SWANN**, H. KIRKE.

1923. A bibliography of British ornithology from the earliest times. Supplement. A chronological list of British birds, by H. Kirke Swann. *8vo. pp. 17+42.* *London.*

A supplement to the Mullens and Swann *Bibliography of British Ornithology* entirely compiled by the junior author.

1925. Notes on Sussex ornithology. *See* DENNIS, *Rev.* R. N.

MÜLLER, ADOLF [1821–] and **MÜLLER**, KARL.

1865. Charakterzeichnungen der vorzüglichsten deutschen Singvoegel. *8vo.* *Leipzig.*

Probably the first edition of a very popular work on German songbirds.

1866–9. Wohnungen, Leben . . . in der höheren Thierwelt. *8vo. pp. 14+556. 8 pl. figs. in text.*

Popular notes on the higher vertebrates, by the two Müllers.

1868. Charakterzeichnungen der vorzüglichsten deutschen Singvögel. *8vo. pp. vi+112. 10 pl. 8 figs. T. of c.* *Leipzig.*

Another edition of this popular work.

**** and **MÜLLER**, KARL.

1882–3. Thiere der Heimath; Deutschlands Säugethiere und Vögel, geschildert von Adolf und Karl Müller. *2 vols. 4to. illust.* *Kassel.*

First edition. There were several additional printings of this popular work.

MÜLLER, AUGUST.

1882. Die Ornis der Insel Salanga, sowie Beiträge zur Ornithologie der Halbinsel Malakka. *8vo. pp. [6]+96. 1 tab.* Erlangen. Friedrich Alexanders Universität thesis. *Naumburg.*

A systematic, descriptive list of 155 avian species frequenting the island of Salang (Burma) and its neighborhood. The present copy is from the library of Prof. W. Blasius to whom it was presented by the author.

MÜLLER, HERMANN.

1881. Am Neste. Beobachtungen und Mitteilungen über das Leben und die Fortpflanzung einheimischer körnerfressender Vögel. *12mo. pp. 12+178. T. of c.* *Berlin.*

One of the many pamphlets on German cage-birds.

MÜLLER, JOHANNES [1801–58].

1826. Zur vergleichenden Physiologie des Gesichtssinnes des Menschen und der Thiere. *8vo. pp. 32+462. pl. and tab.* *Leipzig.*

1839. Ueber die Compensation . . . am menschlichen Stimmorgan. Mit Bemerkungen ueber die Stimme der Säugethiere, Vögel und Amphibien. *8vo. illust.* [O.] *Berlin.*

****, **BELL**, F. J., and **GARROD**, A. H.

1878. On certain variations in the vocal organs of the Passeres that have hitherto escaped notice. *4to. pp. (8)+74. 8 pl. (97 figs.). addend. Oxford.*

Translated from the German with notes and an appendix by Garrod.

MÜLLER, JOHANN FRIEDRICH THEODOR [1822–97].

1869. Facts and arguments for Darwin. *8vo. pp. 4+144. illust.* *London.*

Translated from the German by W. S. Dallas.

MÜLLER, JOHANN WILHELM VON [1824–66].

1853. Description de nouveaux oiseaux d'Afrique, découverts et dessinées d'après nature, pour servir de suite aux Planches enluminées de Buffon aux Planches coloriées de Temminck et Laugier de Chartrouse et au nouveau recueil général de Planches peintes d'oiseaux de O. des Murs. *folio. no p. 16 pl. (col.).* Liv. 1–5 (all pub.). *Stuttgart.*

An unfinished series, with the accompanying text, forming the French edition of the author's *Beitr. zur. Orn. Afrikas*, and a worthy successor of the colored portraits above enumerated. It is quite rare. The present copy, bound by Riviere, is from the Gurney Library.

[**1864–5**]. Systematisches Verzeichniss der Wirbelthiere Mexicos. (*Reisen in den Vereinigten Staaten, Canada und Mexico*, pt. 3, 1864–5.) *8vo. pp. 109.* *Leipzig.*

A separately bound excerpt.

1864–5. Reisen in den Vereinigten Staaten, Canada und Mexico. *3 vols. 8vo.* *Leipzig.*

A valuable account by a naturalist of note, who gives a good account of animal life as he saw it in his travels.

MÜLLER, KARL. **1865–8** and **1882–3.** *See* MÜLLER, ADOLF.

MÜLLER, LORENZ.

1912. Zoologische Ergebnisse einer Reise in das Mündungsgebeit des Amazonas. (*Abhandlungen der K. Bayerischen Akademie der Wissenschaften*, XXVI, Band 1.) *8vo. pp. 41+142. 3 pl. München.*

MÜLLER, OTTO FREDERIK [1730–84].

1788–1806. Zoologia Danica, seu Animalium Daniae et Norvegiae, etc. *4 vols. folio. 160 col. pl. 3 vols. text.* Vol. 4, *plates.* *Havniae.*

The third and much enlarged edition of a classic history, first issued in 1779–84 in two volumes. The third volume was added by P. C. Abildgaard, and the fourth by P. C. Abildgaard, M. Vahl, J. S. Holten, and J. Rathke.

MÜLLER, PHILIPP LUDWIG STATIUS [1725–76].

1754. *See* VALENTIJN, FRANÇOIS.

1773–6. Des Ritters C. von Linné . . . Natursystem. *See* LINNAEUS, 1773–6.

MÜLLER, RICHARD.

1889. Die Kennzeichen unserer Vögel. *8vo. pp. 227. T. of c.* *Krotoschin.*

A serious description of the birds of Germany, both domestic and visitant, with an account of their distribution, nidification, habits, etc. The present copy is interleaved and partially filled with notes. The Compiler is unable to find the title listed in any of the usual catalogues; it must be very rare.

MÜLLER, S. and **SCHLEGEL,** H.

1839–45. Verhandlingen over de Natuurlijke Geschiedenis der Nederlandsche overzeesche bezittingen, etc. *3 vols. folio. illust.* *Leiden.*

This noteworthy and classic contribution to the zoology of Dutch East Indian (and other colonial) zoology is part of an elaborate report of a government commission, edited by C. J. Temminck. The authors described and depicted the Mammalia, *pp. 57+228. 49 col. pl.*; Aves, *pp. 71. 12 col. pl.*; and Pisces, *pp. 25. 6 col. pl.*

MULLIN, JOHN.

1922. The British Guiana handbook. *See* FRANCIS, WILLIAM.

MULSANT, MARTIAL ETIENNE [1797–1880], **VERREAUX,** JULES, and **VERREAUX,** ÉDOUARD.

1865. Essai d'une classification méthodique des trochildés ou oiseaux-mouches. *8vo. pp. 98. T. of c. bibliogr.* *Paris.*

A well-known catalogue of humming-birds with a description of new species, also published in a periodical of later date.

****** and others.**

1868. Description d'une espèce nouvelle d'oiseau-mouche.

Three (separate) articles presented to the Société Linnéenne during 1868 by the author and several colleagues on new species of Trochilidae.

****** and VERREAUX,** ÉDOUARD.

1874–7. Histoire naturelle des oiseaux-mouches ou colibris constituant la famille des Trochilidés. *4 vols. 4to.* Vol. I, *pp. (6)+343. 18 pl. (col.).* Vol. II, *pp. (6)+327. 14 pl. (col.).* Vol. III, *pp. (6)+303. 16 pl. (col.).* Vol. IV, *pp. (6)+308. 16 pl. (col.). bibliogr.* *Lyon.*

A famous monograph on humming-birds. The work was issued in 16 *livraisons*, the first four appearing during 1873–4, the next four during 1875–6, with a like number in 1876–7, and the balance in 1877–8. A Supplement was published in 1879.

1875. Catalogue des oiseaux-mouches ou colibris. *8vo. pp. 32.* *Lyon.*

MULSO, *Rev.* JOHN [1721–91].

[**1906**]. Letters to Gilbert White of Selborne; ed. with notes and an introd. by Rashleigh Holt-White. *8vo. pp. xvi+362. front. (facs.). index.* *London.*

The first mention of the correspondence between Gilbert White and Mulso occurs in 'a short biography' of the naturalist written by Ed. Jesse for Sir Wm. Jardine's edition of the 'Selborne' published in 1850. The present work contains no less than 229 of Mulso's letters to Gilbert White printed in their entirety, 1744–90. Unfortunately White's letters to Mulso were all destroyed by the latter's son.

MUNN, PHILIP WINCHESTER and **KELSALL,** J. E.

1905. The birds of Hampshire and the Isle of Wight. *See* KELSALL, J. E. and MUNN, P. W.

MUNRO, J. A.

[**1923**]. The pileated woodpecker. *8vo. pp. 4.* *Ottawa, Canada.*

A brief account of the usefulness of this handsome woodpecker, and its disappearance from many districts owing to the hunter's desire for a trophy. Author's reprint from *The Canadian Field-Naturalist*, 1923.

MUNTHE, AXEL.

[**1929**]. The Story of San Michele. 2nd ed. *8vo. pp. 530.* *London.*

The autobiography of a doctor who is a great lover of animals. The author's profits on the sale of this book are given to the Naples Society for the Protection of Animals. The author, who is a valued friend of the Compiler, informs him that he is also interested in the protection of birds in his native Sweden, and has recently purchased a sanctuary for them there.

MURDOCH, JOHN [1852–].

1885. [Natural history of Alaska]. *See* INTERNATIONAL POLAR EXPEDITION.

MURDOCH, WILLIAM GORDON BROWN [1862–].

1923. A naturalist at the poles. *See* BROWN, R. N. R.

MURIE, O. J.

1930. Animal life of Yellowstone National Park. *8vo. pp. 241. 2 col. pl. 68 figs. in text. index.* *Baltimore.*

MURITHIENNE SOCIÉTÉ VALAISANNE DES SCIENCES NATURELLES, SION.

1868–*date*. Bulletin. *See also* LA MURITHIENNE.

MURPHY, CHARLES OSCAR [1870–].

[**1900**]. Die morphologische und histologische entwickelung des kleinhirns der vögel. *8vo. pp. 42.* *Berlin.*

A monograph on the histology and development of the cerebellum in birds. A complete bibliography is appended.

MURPHY, JOHN M.

1882. American Game Bird Shooting. *12mo. illust.* *New York.*

MURPHY, LOUISE.

1912. A little book of bird songs; rhymes and tunes. *4to. pp. vii+39. 35 figs. T. of c.* *London.*

The songs, rhymes, and tunes forming the contents of this little book are woven around 16 Canadian birds. The copy is a presentation to Dr. Casey Wood from the author.

1923. Sweet Canada; twelve birds songs and a round. *8vo. pp. 31. T. of c.* *Toronto.*

This book the author says invites you to travel along the friendly by-ways of forest and field, of mountain and plain, where nature is forever wearing the romantic story of our common day. The present copy is an autographed presentation.

MURPHY, ROBERT CUSHMAN [1887–].

1924. Birds Collected during the Whitney South Sea Expedition. II. *pp. 13.* American Museum Novitates. *N.Y.*

1925. Bird islands of Peru; the record of a sojourn on the west coast. *8vo. pp. xx+362. front. 31 pl. 8 figs. (2 diagr., 6 maps). bibliogr. index.* *New York.*

The present copy is autographed by the author.

MURRAY, ANDREW [1812–78].

1866. The Geographical Distribution of Mammals. *4to. pp. 16+420. 2 col. pl. 101 col. maps. text illust.* *London.*

One of the most important contributions to zoogeography extant, by the editor of the *Journal of Travel and Natural History.*

MURRAY, GLADYS ESMÉ GRAHAM.

1915. A birdlover's year. *12mo. pp. viii+150+(1). front. 12 pl.* *London.*

MURRAY, JAMES. *See* SHACKELTON, E. H., 1909.

MURRAY, JAMES A.

1880–90. The avifauna of British India and its dependencies. *2 vols. 4to.* Vol. 1, *pp. xxiv+325. 22 pl. (12 col., 2 diagr.). 38 figs.* Vol. 2, *pp. vii+838+42 (tab.). 15 pl. (7 col.). 56 figs. 2 indexes.* *London.*

This important work was issued in seven parts.

1884. The vertebrate zoology of Sind with descriptions of all the known species of mammals, birds, and reptiles inhabiting the province. *8vo. pp. xvi +424. 12 pl. (1 col.). 48 figs. index.* *London.*

1889. The edible and game birds of British India with its dependencies and Ceylon. *4to. pp. 8+ 237. 6 pl. (4 col.). 1 diagr. 42 figs. addend. 2 indexes.* *London.*

A detailed description of 245 species.

1890. The avifauna of the island of Ceylon. *4to. pp. xxxiv+382. 2 pl. (col., 1 of eggs). 2 diagr. 37 figs. 2 indexes.* *London.*

Composed mostly of extracts from the author's *Avifauna of British India.*

1890. 1,460 labels for birds and eggs arranged according to [his] 'Avifauna of British India' . . . and the numbers in Jerdon's 'Birds of India'. *4to. pp. 4+146.* *Bombay.*

MURRAY, JOHN [1841–] and **THOMSON,** C. W.

1881–2. Report on the scientific results of the voyage of H.M.S. Challenger. *See* THOMSON, C. W. and MURRAY, J.

(THE) MURRELET; official bulletin of the Pacific northwest bird and mammal club.

1920–30. *4to.* Mimeographed. *Seattle, Wash.*

This interesting scientific periodical certainly deserves, as says the *Condor*, vol. 23, p. 100, a more permanent form than that afforded by the mimeograph, and it is hoped will shortly assume it. Among its contributors are J. Hooper Bowles, J. A. Monro, F. S. Hall, Trevor Kincaid, Clinton Cooke, J. D. Burleigh, D. E. Brown, A. M. Winslow, E. P. Walker, and other well-known ornithologists.

MUSCHAMP, EDWARD A.

1930. Audacious Audubon. The Story of a great Pioneer, Artist, Naturalist and Man. *8vo. pp. 312. 5 illust.* *New York.*

One of the lives of an illustrious student of natural history.

MUSEAL-VEREIN FÜR KRAIN. *Laibach.*

1866. Mittheilungen.

(LA) MUSÉE AQUITAINE. (Periodical.)

1823–4. (All pub.) *See* BORDEAUX.

MUSÉE DU CONGO BELGE, BRUSSELS.

1898–*date*. Annales (Zoologique). *See also* ANNALES DU MUSÉE DU CONGO.

MUSÉE D'HISTOIRE NATURELLE DE CAEN. *Caen, Paris.*

1881. Annuaire.

MUSÉE D'HISTOIRE NATURELLE, MARSEILLES.

1882–*date*. Annales.

1898–9. Annales: Bulletin.

MUSÉE ROYALE D'HISTOIRE NATURELLE DE BELGIQUE. *Brussels.*

1877–87. Annales (all pub.).

1882–8. Bulletin.

1900–*date*. Mémoires.

MUSÉE TEYLER. *See* HAARLEM.

MUSÉE ZOOLOGIQUE DE L'ACADÉMIE DES SCIENCES, LENINGRAD.

1896–*date*. Annuaire.

MUSEI DI ZOOLOGIA ED ANATOMIA COMPARATA . . . DI TORINO. *See* TURIN.

MUSEO CIVICO DI STORIA NATURALE, GENOA.

1870–*date*. Annali.

MUSEO CIVICO DI STORIA NATURALE, MILAN. *See* SOCIETÀ ITALIANA DI SCIENZE NATURALI, etc., MILAN.

MUSEO CIVICO DI STORIA NATURALE, TRIESTE.

— (1884–Vol. 7). Atti.
— Cenni Storici.

(R.) MUSEO DI FISICA E STORIA NATURALE, FLORENCE.

1808–9. Annali.

1865. Annali. New series.

MUSEO GOELDI (MUSEO PARAENSE) DE HISTORIA NATURAL, PARÁ, BRAZIL.

1894–1912. Boletím.

1900–5. Memorias.

1894–1904. Relação.

MUSEO DE HISTORIA NATURAL, VALPARAISO. *See* REVISTA CHILENA DE HISTORIA NATURAL.

MUSEO NACIONAL DE HISTORIA NATURAL, BUENOS AIRES.

1864–*date*. Anales.

1898–1901. Comunicaciones.

1894–9. Memoria.

1924–*date*. Memoria Anual.

MUSEO NACIONAL DE MONTEVIDEO.

1894–*date*. Anales.

MUSEO DE LA PLATA.

1893–5. Anales; sección zoológica.

1890–*date*. Revista.

MUSEO ZOOLOGICO DELLA R. UNIVERSITÀ DI NAPOLI. *See* NAPLES, MUSEO ZOOLOGICO.

MUSEUM OF COMPARATIVE OOLOGY.

Journal. Annual. Edited by Wm. Leon Dawson, Santa Barbara, Cal.

1919–22. (All pub.) Illustrated by (colored) plates and cuts in the text.

The Museum is a 'chartered public institution devoted to the study of the Birds of the World, their nests and eggs'. Apart from the chief contributor, William Leon Dawson, papers are furnished by J. Hooper Bowles, A. C. Bent, and others. *See also* COMPARATIVE OOLOGIST.

MUSEUM OF COMPARATIVE ZOOLOGY.

See HARVARD UNIVERSITY.

MUSEUM GODEFFROY.
1874. Catalog V nebst einer Beilage enthaltend Topographische und zoologische Notizen. *8vo. pp. xxxvi+215.* *Hamburg.*
One of eight (or more) lists of duplicates for sale in the museum, and containing valuable notes on general zoology.

MUSÉUM D'HISTOIRE NATURELLE DE GENÈVE. *See* REVUE SUISSE DE ZOOLOGIE.

MUSÉUM D'HISTOIRE NATURELLE DE LYON. *See* MUSÉUM DES SCIENCES NATURELLES DE LYON.

MUSÉUM D'HISTOIRE NATURELLE, PARIS.
1802–13. Annales.
1839–61. Archives.
1895–*date*. Bulletin.
1815–32. Mémoires.
1909–*date*. Notulae systematicae.
1832–5. Nouvelles annales.
1865–74. Nouvelles Archives. Series 1.
1875–88. Nouvelles Archives. Series 2.
1889–98. Nouvelles Archives. Series 3.
1899–1908. Nouvelles Archives. Series 4.
1908–*date*. Nouvelles Archives. Series 5.

MUSEUM HOMEYERIANUM.
1893. Verzeichniss der ornithologischen Sammlungen. *See* BLASIUS, W.

MUSEUM OF NATURAL HISTORY, SPRINGFIELD, MASS. *See* SPRINGFIELD MUSEUM OF NATURAL HISTORY.

(R.) MUSEUM VAN NATUURLIJKE HISTORIE. *See* LEYDEN.

MUSEUM NOVITATES.
1921–30. Nos. 1–302 (February 29th, 1928). *See* AMERICAN MUSEUM OF NATURAL HISTORY.

MUSEUM PAPERS. Alabama Museum of Natural History. *See* ALABAMA MUSEUM.

MUSEUMS ASSOCIATION. 1890–1900. *See also* MUSEUMS JOURNAL. *Sheffield.*

MUSÉUM DES SCIENCES NATURELLES DE LYON. *Lyons.*
1872–*date*. Archives.
1913–*date*. Bulletin.
1888–1912. Travaux.

MUSEUM SENCKENBERGIANUM. *See* SENCKENBERGISCHE NATURFOR. GESELL.

MUSEUMS JOURNAL. *London.*
1901–*date*. Continues Report of Proceedings of Museums Association.

MUSEUM STAVANGER. *See* STAVANGER MUSEUM, NORWAY.

MUSEUM TROMSØ. *See* TROMSØ MUSEUM, NORWAY.

MUSEUM OF ZOOLOGY, DUNDEE. *See* DUNDEE UNIVERSITY COLLEGE.

MUSEU NACIONAL DE RIO DE JANEIRO.
1876–*date*. Archivos.
1923–*date*. Boletin.
— Publicação.
1919–*date*. Relatorio.

MUSEU PAULISTA. *São Paulo.*
1895–1900. Revista.

1907. Catalogos da Fauna Braziliera. Vol. I. As aves do Brazil. *São Paulo.*
An annotated list of the birds of Brazil (by the Iherings) with notes on distribution and on the specimens of each species preserved in the Museu Paulista. The work forms Vol. I of a series of which several other volumes have since been issued.

MÜTZEL, T. **1898.** *See* MARSHALL, W. A. L.

MUYBRIDGE, EADWEARD [1830–1904], originally EDWARD JAMES MUGGERIDGE.
1893. Descriptive zoopraxography; or, The science of animal locomotion made popular. *8vo. pp. xi+44+34+14. front. (portr.). 51 figs.* *Chicago.*

MYERS, H. M. and **MYERS,** P. V. N.
1871. Life and Nature under the Tropics, etc. *8vo. pp. 360. illust.* *New York.*

MYERS, HARRIET WILLIAMS.
1922. Western birds. *8vo. pp. xii+391. front. 44 pl. index.* *New York.*
A popular account of the song birds of the western coast of the United States. The work is clearly written and contains a mass of interesting notes. The present copy is an autographed one from the author to Dr. Casey Wood, with letter inserted.

1929. California State Bird Candidates. *12mo. pp. 37. index.*
Pamphlet issued by California State Audubon Society.

MYERS, I. H.
1928. How animals find their way about. *See* RABAUD, ÉTIENNE.

MYERS, SARAH A. *See* MARTIN'S NATURAL HISTORY, 1861.

MYSTRÖM, C. L.
1863. Faunan i Jemtlands Vattendrag. *Stockholm.*

NACHRICHTENBLATT FÜR FISCHZUCHT UND FISCHEREI; Zentralorgan für die gesamten Interessen der Fischzucht, Fischerei, Fischverwertung und des Fischhandels.
1928–30. *8vo. illust.* *Tetschen/a/Elbe.*

NACHRICHTSBLATT FÜR GEOLOGEN, PALÄONTOLOGEN UND MINERALOGEN. *Leipzig.* **1924–*date*.**

NAEF, A.
1922. Die fossilen Tintenfische. *illust.* *Jena.*

NANCY, *See* SOCIÉTÉ DES SCIENCES DE NANCY.

NANCY UNIVERSITÉ.
1911?–18? Travail . . . et de la Station Zoologique de Cette.

NANSEN, FRIDTJOF [1861–] and **COLLETT,** ROBERT.

1900–6. (The) Norwegian North polar expedition 1893–1896. Scientific results. *6 vols. 4to.* Vol. 1, pt. IV, *pp. 53. 2 pl. (1 col.). index.* *London.*

Only a small portion of this well-known expedition interests vertebrate-zoologists. The birds are described by R. Collet and F. Nansen; Jurassic fauna by J. F. Pompeckj.

NAPIER, CHARLES OTTLEY GROOM.

1865. The food, use, and beauty of British birds; an essay, accompanied by a catalogue, of all the British birds. *8vo. pp. 83. index.* *London.*

NAPLES. Annali d. Accademia degli aspiranti naturalisti. 1843–87.

NAPLES. Museo Zoologico.

1861–6. Annuario.

1901–*date*. Annuario. New series.

NAPLES. Società dei Naturalisti.

1887–1925. Bullettino. Prima Ser. (20 vols.) e Nuova Ser. 1887–1925. Vol. 1–17.

NAPLES. Stazione Zoologica.

1880–1930. Fauna und flora des Golfes von Neapel.

1879–1915. Mitteilungen.

1916–30. Pubblicazioni.

1919–30. Pubblicazioni. Richerche di fisiologia e di chimica biologica.

1879–1913. Zoologischer Jahresbericht. *Leipzig.*

NARES, GEORGE STRONG [1831–1906].

1878. Narrative of a Voyage to the Polar Sea during 1875–6 in H.M.S. 'Alert' and 'Discovery'. *2 vols. 8vo. illust.* (Wanting.) *London.*

This is the second edition of this Voyage, the first appearing also in 1878. The appendix (Vol. II) contains the Natural History, the mammalia and aves being described by H. W. Feilden, the pisces by A. Günther.

NASH, CHARLES WILLIAM [1848–].

1898. The birds of Ontario in relation to agriculture. Pub. by the Ontario dept. of agriculture. *8vo. pp. 32. 32 pl.* *Toronto.*

1901. The birds of Ontario in relation to agriculture. *8vo. pp. 79. 32 figs.* *Toronto.*

This (second) edition differs from the 1898 print in that the text has been reset and altered in places, and the illustrations instead of being on separate plates at the end of the volume are figured with the text.

1904. The birds of Ontario in relation to agriculture. *8vo. pp. 79. 32 figs.* *Toronto.*

The third edition, identical with the second.

1905. Check list of the vertebrates of Ontario and catalogue of specimens in the biological section of the Provincial museum. Birds. *4to. pp. 82. illust.* (Issued by the Department of Education.) *Toronto.*

A useful local list with notes on some genera and species. Starred items are missing from the collection, the nomenclature of the Check List of the A.O.U. being utilized for classifying the specimens. Illustrative cuts appear in the text.

1908. Vertebrates of Ontario. (Department of Education, Toronto.) *8vo. 32 pl. 27 figs. append. glossary. index.* *Toronto.*

This Manual was issued in four separate sections, each separately paged, and divided into 'Fishes of Ontario', *pp. 1–122*; 'The Batrachians and Reptiles of Ontario', *pp. 5–18*; 'Check List of the Birds of Ontario', *pp. 7–82*; 'Mammals of Ontario', *pp. 83–96*; with Glossary and Index to sections. The copy is autographed by the author.

1913. Birds of Ontario in relation to Agriculture. *8vo. 32 pl.* *Toronto.*

Another, unaltered edition.

1919. Birds of Ontario in relation to agriculture. (Bulletin 218, Ontario Dept. of Agriculture.) *8vo. pp. 144. 55 figs. index.* *Toronto.*

A much revised and enlarged edition. In addition to the extra text and illustrations, a list of the latter has been added, together with an index.

NASH, JOSEPH [1809–78].

1824. A practical treatise on British song birds. *12mo. pp. 8+102. 8 col. pl. T. of c.* *London.*

A dealer's and bird fancier's book on the canary and some native British song-birds. Several other editions were published.

NASSAUISCHER VEREIN FÜR NATURKUNDE. *Wiesbaden.*

1844–1930. Jahrbücher.

NATAL.

1906–30. Annals of the Natal Museum, Pietermaritzburg.

1904–5. Report, 1 and 2.

1901–7. Geological Survey of Natal and Zululand. Final Report. . . . By W. Anderson. *3 vols. 4to. col. illust.* *Pietermaritzburg and London.*

A very valuable series of reports (three in all) concerning chiefly floral and faunal fossil remains. Reptilian forms are described by R. Broom; fish by A. Smith Woodward, and mammals (from Zululand) by W. B. Scott.

NATHUSIUS, WILHELM VON [1828–99].

? **1870.** Ueber die Eischalen von Aepyornis, Dinornis, Apteryx und einigen Crypturiden. *8vo. pp. 26. pl.*

Author's special reprint.

? **1870.** Ueber die Hüllen, welche den Dotter des Vogeleies umgeben. *8vo. pl.*

Separately bound reprint.

NATIONAL ACADEMY OF SCIENCES. *Washington.*

1863–6. Annual.

1877–1919. Biographical Memoirs.

1866–1930. Memoirs.

1863–1930. Proceedings.

1915–30. Proceedings.

1863–1930. Report.

NATIONAL ANTARCTIC EXPEDITION, 1901–4.

1907. Natural history. Vol. II. Zoology. *See* BRITISH MUSEUM (NAT. HIST.).

1908. Album of photographs and sketches with a portfolio of panoramic views. *4to. pp. xvi+303. front. 140 pl. (11 fold., 7 col.). index. In portfolio. 24 pl. (fold.).+2 maps (col. fold.).* *London.*

Records of geographical and topographical facts, including a biological series of mammals and birds, there being 28 plates devoted to picturing the home-life of the latter—mostly penguins.

NATIONAL ASSOCIATION OF AUDUBON SOCIETIES. *New York.*

1905–*date*. Annual Report.

1915–*date*. Bulletin.

1915–*date*. Circular.

1903–*date*. Educational Leaflets.

[**NATIONAL ASSOCIATION OF AUDUBON SOCIETIES** (*contd.*)]

1906–12. Special Leaflets.

1927–30. Audubon bird cards.

1926–30. Federal power and duck bag limits: facts from a study. Bulletin 1–16. *New York.*

This study, by a friend of the Association, is published to aid the general public in acquiring a more accurate knowledge of the state and federal laws and federal policies surrounding the well-being of the wild fowl of the United States. To 1930, 16 of these interesting numbers have been published.

NATIONAL CONFERENCE ON OUTDOOR RECREATION, WASHINGTON.

1925. The case of our migratory wild fowl, as threatened by latest tactics of the minority Opposition to the Game Refuge Bill. *4to. pp. 8. 7 figs.* *Washington.*

Special reprint from *American Forests and Forest life*, July 1925.

NATIONAL CYCLOPEDIA OF AMERICAN BIOGRAPHY.

1906. Conspectus and Index. *N.Y.*

A very useful source of information regarding the lives and writings of American zoologists.

NATIONAL GEOGRAPHIC MAGAZINE. NATURAE NOVITATES.

Organ of the National Geographic Society, 1899–1930.

1914. Common birds of town and country. *8vo. 114 illust. in col. 52 plain. index.* Seven reprints. Text by H. W. Henshaw, F. H. Kennard, and W. W. Cooke. Drawings by Louis Agassiz Fuertes. *Washington.*

1918. The book of birds. Common birds of town and country. Text by Henshaw, Kennard, Cooke, and George Shiras 3rd; color plates by Louis Fuertes. *8vo. 331 figs. in col. 84 plain.* Seven reprints. *Washington.*

NATUR. (**Deutsche Naturwissen. Gesell.**) **1910**–*date.* *Leipzig.*

NATUR. *Halle.*

1852–1902. Merged into Naturwissenschaftliche Wochenschrift.

1862–72. Ergänzungs-hefte.

NATURA. **1877–81.** *Florence.*

NATURA. **1883–5?** *Ghent.*

NATURA. **1906**–*date.* *Haarlem.*

NATURA; RIVISTA DI SCIENZE NATURALI. **1909**–*date.* *Milan.*

NATURA ED ARTE. **1891**–*date?* *Rome, Milan.*

NATURAE NOVITATES.

1879–1930. Bibliographie der Naturgeschichte und der exakten Wissenschaften. Friedlander und Sohn. *Berlin.*

An extremely useful priced catalogue.

NATURALEZA. Ciencias, Industrias. **1865**–*date.* *Madrid.*

NATURALEZA. (**Museo Nacional de Historia Natural, Mexico.**)

1869–86. Series 1.

1887–1909. Series 2.

1910–12. Series 3. (All pub.)

NATURAL HISTORY.

1791–2. A new system of the Natural History of Quadrupeds, Birds, Fishes and Insects. *3 vols. 4to. illust.* *See also* ANONYMOUS. *Edinburgh.*

1853–60. *23 vols. 8vo.*

Contains several volumes devoted to Zoology.

1906–30. Journal of the American Museum of Natural History. *8vo. illust.* *New York.*

One of the most important publications of this flourishing institution.

NATURAL HISTORY AND ANTIQUARIAN SOCIETY, PENZANCE, ENGLAND.

1845–65. Report. Continued as Report and Transactions.

1880/1–1893/8. Report and Transactions.

(**THE**) **NATURAL HISTORY OF BIRDS,** comp. from the best authorities, and illustrated by a great variety of copper plates, &c. **1793.** *See* ANONYMOUS.

(**THE**) **NATURAL HISTORY OF BIRDS,** from the works of the best authors, ancient and modern, &c. **1815.** *See* ANONYMOUS.

NATURAL HISTORY OF BIRDS; their architecture, &c. **1840.** *See* ANONYMOUS.

NATURAL HISTORY BULLETIN. *See* SCRANTON, PA., EVERHART MUSEUM OF NATURAL HISTORY, SCIENCE AND ART.

NATURAL HISTORY CLUB OF PHILADELPHIA.

1868–74. Annual Report (all pub.).

NATURAL HISTORY COLLECTORS' MONTHLY. **1893.** *Newburgh, N.Y.*

NATURAL HISTORY JOURNAL.

1877–98. Vols. 1–22 (all pub.). *York, England.*

NATURAL HISTORY MAGAZINE.

1927–31. 3 vols. Pub. by the Br. Mus. (Nat. Hist.).

NATURAL HISTORY NOTES; ed. by F. J. Rowbotham.

1880. First series (mimeographed). Nos. 1–12 and supplement. *4to.*

1881–3. Second series. *8vo. illust.* No more published. *London.*

(**THE**) **NATURAL HISTORY OF REMARKABLE BIRDS,** with their habits and instincts. **1821.** *24to. pp. viii+172. front. 16 figs.* *Dublin.*

A curious little work by an anonymous writer, who selected 23 common birds for discussion.

NATURAL HISTORY REVIEW. (**Dublin Quarterly Journal of Science.**) *Dublin, London.*

1854–60. Vols. 1–7.

1861–5. Vols. 1–5. New series.

NATURAL HISTORY AND SCIENCE SOCIETY OF WESTERN AUSTRALIA, PERTH.
1899–1914. Journal (all pub.).

NATURAL HISTORY AND SCIENTIFIC BOOK CIRCULAR. 1871–5. *London.*

NATURAL HISTORY SERIES. [1885]. *See* JOHONNOT, J.

NATURAL HISTORY OF SINGING BIRDS.
1745. *See* ANONYMOUS.

NATURAL HISTORY SOCIETY OF HARTFORD, CONN.
1836. Transactions (all pub.).

NATURAL HISTORY SOCIETY OF BRITISH COLUMBIA.
1893–1910? Bulletin.

NATURAL HISTORY SOCIETY OF DUBLIN.
1849–71. Proceedings. (All pub.) *See also* NATURAL HISTORY REVIEW.

NATURAL HISTORY SOCIETY OF GLASGOW.
1851. Transactions. Series 1.

1858–83. Transactions. Series 2.

1883–1908. Transactions. Series 3.

NATURAL HISTORY SOCIETY OF MONTREAL. *See* CANADIAN RECORD OF SCIENCE.

NATURAL HISTORY SOCIETY OF NEW BRUNSWICK, ST. JOHN.
1863, 1880. Annual Report. Continued as Bulletin.

1882/6–*date*. Bulletin.

NATURAL HISTORY SOCIETY OF NORTHUMBERLAND, DURHAM AND NEWCASTLE-ON-TYNE.
1830–51. Report.

1830–8. Transactions.

1865–1913. Transactions.

1914–*date*. Transactions. New series.

NATURAL HISTORY SOCIETY OF SIAM.
1914–*date*. Journal.

NATURAL HISTORY SOCIETY OF TAIWAN. *See* TAIWAN HAKUBUTSU GAKKWAI.

NATURAL HISTORY SOCIETY OF WISCONSIN.
1900–15. Bulletin.

1858–82. Jahres-Bericht.

1889–96. Occasional papers.

1884–8. Proceedings.

NATURALIEN-CABINET MIT NATURALIEN- UND LEHRMITTELMARKT.
1889–95? *Grünberg.*

NATURALISMO MODERNO. 1878–*date*. *Naples.*

NATURALIST. *Austin, Texas.*
1894–5. Merged into Oregon Naturalist.

NATURALIST. 1830–2. *Boston.*

NATURALIST. 1893. *Des Moines, Ia.*

NATURALIST. 1837–9. *London.*

NATURALIST. *London.*
1851–8. Continued as Magazine of Natural History and Naturalist.

NATURALIST; a monthly journal of natural history for the north of England. *London.*
1864–7.

1875–*date*. New series.

NATURALIST. (**Natal Scientific Society.**)
1910–11. *Durban.*

NATURALIST. 1894–8. *See* OREGON NATURALIST. *Oregon City.*

NATURALIST. *See* KANSAS CITY SCIENTIST. *Valparaiso, Ind.*

NATURALISTA. 1886–91. *Barcelona.*

NATURALISTA. 1839. *Milan.*

NATURALIST ADVERTISER. 1871–5. *Salem, Mass.*

NATURALIST AND COLLECTOR. 1895. *Abingdon, Ill.*

NATURALIST AND FANCIER.
1877–9. Monthly. Pub. and ed. by Chas. W. Gunn. *8vo.* Each number has 4 pages. The first volume had 12 (monthly) numbers; the second three and the third or final volume two numbers. *Grand Rapids, Mich.*
This journal was devoted almost exclusively to bird life.

NATURALIST AND JOURNAL OF NATURAL HISTORY. 1846. *Nashville, Tenn.*

NATURALISTA SICILIANO. (**Società Siciliana di Scienze Naturali.**) *Palermo.*
1881–95.

1896–*date*. New series.

NATURALISTE. *Paris.*
1879–87. Series 1.

1887–1910. Series 2.

NATURALISTE CANADIEN. 1868–*date*. *Quebec.*

NATURALISTES BELGES. *Brussels.*
1920–*date*. Bulletin Mensuel.

NATURALIST IN FLORIDA. 1884–5. (All pub.) *St. Augustine, Fla.*

NATURALIST GLEANER. 1886. *College Springs, Ia.*

NATURALISTS' AGENCY MONTHLY BULLETIN. *See* NATURALISTS' LEISURE HOUR.

NATURALISTS' CHRONICLE. 1878–92. (? All pub.) *Cambridge.*

NATURALISTS' CIRCULAR. 1867–8. *London.*

NATURALISTS' COMPANION. 1885–6. (All pub.) *Brockport, N.Y.*

NATURALISTS' COMPANION. (Virginia Collectors' Club.) 1881–2. *Wytheville.*

NATURALISTS' DIRECTORY. 1877–1930. *Salem and Boston, Mass.*

World directory of naturalists, ed. by S. E. Cassino.

NATURALISTS' GAZETTE. *London.*
1889–90. Merged into Garner and Science Recorders' Journal.

NATURALISTS' JOURNAL. 1767. *London.*

NATURALISTS' JOURNAL. 1892–1902. *See also* NATURE STUDY. *London.*

NATURALISTS' JOURNAL AND GUIDE. *See* NATURE STUDY.

NATURALISTS' JOURNAL AND MISCELLANY. 1832. *Edinburgh.*

NATURALISTS' LEISURE HOUR. *Philadelphia.*
1877–95. No. 1 as Naturalists' Agency Monthly Bulletin.

NATURALISTS' LIBRARY. Edited by Sir W. Jardine. *40 vols.*
1834–43. 1st ed. *8vo. illust. partly col. pl.* *Edinburgh.*

The authors contributing to this famous collection of works on all sections of natural history are listed under their separate names in this *Catalogue*, 14 volumes are devoted to birds. The best *résumé* of the epithetics will be found on pp. 1399–40, vol. III, of the *Cat. Lib. Br. Mus. (Nat. History)*. Several editions were published (by Bohn, Lizars, and others) but the text is practically identical in all.

NATURALISTS' MISCELLANY. 1789–1813. (All pub.) *London.*

NATURALISTS' MONTHLY. 1883–8. *London.*

NATURALISTS' NOTE BOOK. *London.*
1867–9. Series 1.
1870. Series 2.

NATURALISTS' POCKET MAGAZINE. 1798–1802? *London.*

NATURALISTS' QUARTERLY. *Salem, Mass.*
1880. 2 nos. (all pub.)

NATURALISTS' RECORD. 1889–90. *London, Falmouth.*

NATURALISTS' REVIEW. 1895. *Boston.*

NATURALISTS' REPOSITORY; or, Miscellany of Exotic Natural History. 1823–7. *See* DONOVAN, E. *London.*

NATURALISTS' WORLD. 1884–7. *London, Ilkley.*

NATURALIST TROUT FISHER. 1882–3. *Ripon, England.*

NATURAL SCIENCE. 1892–9. *London.*

NATURAL SCIENCE ASSOCIATION OF STATEN ISLAND. *See* STATEN ISLAND INSTITUTE OF ARTS AND SCIENCES.

NATURAL SCIENCE BULLETIN, WELLINGTON. *See* ONTARIO NATURAL SCIENCE BULLETIN.

NATURAL SCIENCE JOURNAL, NEW BEDFORD.
1897. 3 nos. (all pub.).

NATURAL SCIENCE NEWS. 1895–6. *Albion, N.Y.*

NATURAL SCIENCE SOCIETY OF ATCO, N.J. *See* SCIENCE ADVOCATE.

NATURE.
1869–1930. A weekly illustrated journal of science. *London.*

NATURE. 1889–90. (All pub.) *New York.*

NATURE, La. 1873–1930. *Paris.*

NATURE AND ART. *See* BIRDS AND NATURE MAGAZINE. In 1898 continued as Animals.

NATURE AND CULTURE. *See* BLUE BIRD.

(THE) NATURE BOOK; a popular description by pen and camera of the delights and beauties of the open air.
1908–9. *3 vols. 4to. paged continuously. pp. 1128.* Vol. I, *front. 12 pl. (col.). 538 figs. (84 birds).* Vol. II, *front. (col.). 11 pl. (col.). 562 figs. (28 birds).* Vol. III, *front. (col.). 11 pl. (col.). 487 figs. (74 birds). index.* *London.*

NATURE DISPLAYED, being Discourses on . . . Fish, Birds, Plants, etc. Edited (translated) by S. Humphreys.
1740. *3 vols. See also* ANONYMOUS.

NATURELAND. A Quarterly Journal of Natural History. 1922–4. (All pub.) *Manchester, England.*

NATURE LOVER. 1922–*date.* *London.*

NATURE MAGAZINE. (American Nature Association, Washington.) *Baltimore.*
1923–30. Ed. Percival S. Ridsdale.

NATUREN; illustrert maanedsskrift for populaer naturvidenskap, utgitt af Bergens Museum, 1877–1900. *Kristiania.*

NATUREN OG MENNESKET. 1889–96. *Copenhagen.*

NATURE NOTES. 1917–23? *Cambridge, Mass.*

NATURE NOTES. (Selborne Society's Magazine.) *See* SELBORNE MAGAZINE.

NATURE NOTES DIGEST AND PACIFIC FUR AND FEATHER. *San Francisco.*
1919–20. Nos. 1–9 as Pacific Fur and Feather.

NATURENS VEERKSTED. **1912–16.**

NATURENS VERDEN. **1917**–*date.*
Copenhagen.

NATURE'S ARCANA. **1866?–73.** *Boston.*

NATURE'S REALM. **1890–1.** *New York.*

NATURE STUDY. (**British Field Club.**)
London, Huddersfield.
1892–1905. 1–14. Nos. 1–4 as Naturalists' Journal. Nos. 5–11 as Naturalists' Journal and Guide. (All pub.)

NATURE STUDY. (**Manchester Institute of Arts and Sciences.**) **1900–4.** (All pub.)
Manchester, N.H.

NATURE-STUDY REVIEW. (**American Nature Study Society.**) *Ithaca, New York.*
1905–23. Merged into Nature Magazine.

NATURE STUDY IN SCHOOLS.
West Newton, Mass.
1899. Ed. by C. J. Maynard. *col. pl.*

NATURFORMEN. **1912–16?** *Stuttgart.*

NATURFORSCHENDE GESELLSCHAFT IN BAMBERG.
1924–*date.* Abhandlungen.

NATURFORSCHENDE GESELLSCHAFT IN BASEL.
1834–52. Bericht. Continued as Verhandlungen.
1852–*date.* Verhandlungen.

NATURFORSCHENDE GESELLSCHAFT IN BERN.
1843–*date.* Mitteilungen.

NATURFORSCHENDE GESELLSCHAFT IN DANZIG.
1924–*date.* Abhandlungen.
1820–62. Schriften.
1863–*date.* Schriften. New series.
1747–56. Versuche und Abhandlungen.

NATURFORSCHENDE GESELLSCHAFT IN EMDEN.
1815–*date.* Jahresbericht.
1855–99. Kleine Schriften.

NATURFORSCHENDE GESELLSCHAFT IN FREIBURG. *See* SOCIÉTÉ FRIBOURGEOISE DES SCIENCES NATURELLES. *Schweiz.*

NATURFORSCHENDE GESELLSCHAFT ZU FREIBURG.
1886–*date.* Berichte.
1858–85. Berichte über die Verhandlungen.
See also BEITRAEGE ZUR RHEINISCHEN NATURGESCHICHTE.

NATURFORSCHENDE GESELLSCHAFT ZU GÖRLITZ.
1827–*date.* Abhandlungen.

NATURFORSCHENDE GESELLSCHAFT GRAUBÜNDENS, CHUR, SWITZERLAND.
1825–9. Jahresbericht.
1853/4–*date.* Jahresbericht. New series.

NATURFORSCHENDE GESELLSCHAFT IN HALLE.
1853–1906. Abhandlungen.
1912–*date.* Abhandlungen. New series.
1880–92. Bericht über die Sitzungen.
1911–20. Mitteilungen.
1809–17. Neue Schriften.

NATURFORSCHENDE GESELLSCHAFT ZU LEIPZIG.
1822. Schriften.
1874–1922. Sitzungsberichte.

NATURFORSCHENDE GESELLSCHAFT IN LUZERN.
1895–*date.* Mitteilungen.

NATURFORSCHENDE GESELLSCHAFT DES OSTERLANDES ZU ALTENBURG.
See MITTEILUNGEN AUS DEM OSTERLANDE.

NATURFORSCHENDE GESELLSCHAFT ZU ROSTOCK.
1882–6. As Rostocker Zeitung.
1886–1908. As appendixes to Verein der Freunde der Naturgeschichte in Mecklenburg.
1908–*date.* Sitzungsberichte und Abhandlungen.

NATURFORSCHENDE GESELLSCHAFT IN SOLOTHURN.
1879/80–1898/9. Bericht. Continued in Mitteilungen.
1899–*date.* Mitteilungen.

NATURFORSCHENDE GESELLSCHAFT IN ZÜRICH.
1761–6. Abhandlungen.
1825–37? Bericht über die Verhandlungen.
1847–56. Mitteilungen.
1798–*date.* Neujahrsblatt.
1856–*date.* Vierteljahrsschrift.

NATURFORSCHENDE KANTONALGESELLSCHAFT IN GRAUBÜNDENS.
1825–9. Bericht. *See also* NATUR. GESELL. GRAUBÜNDENS, CHUR.

NATURFORSCHENDER VEREIN IN BRÜNN.
1862–*date.* Verhandlungen.

NATURFORSCHENDER VEREIN ZU RIGA.
1847–8. Arbeiten. Series 1.
1865–*date.* Arbeiten. Series 2.
1845–*date.* Korrespondenzblatt.

NATURFORSCHER. 1868–88. (All pub.) *Berlin.*

NATURFORSCHER. (**Schoenichen.**) *Berlin.*
1924–*date.* Vereinigt mit der Schweitzer Zeitschrift Natur und Tecknik.

NATURFORSCHER. 1774–1804. *Halle.*

NATURFORSCHER. Eine Physikalische Wochenschrift. 1747–8. *Leipzig.*

NATURFORSCHER GESELLSCHAFT. *See* TARTU, ESTONIA. ÜLIKOOL. *Dorpat.*

NATURFREUND. 1809–21. (All pub.) *Breslau.*

NATURFREUND. 1924–*date.* *Detmold.*

NATURFREUND. 1895–*date*? *Eschweiler.*

NATURFREUND. *Vienna.*
1885–90. Continued as Illustrierte Nützliche Blätter.

NATURFREUND. (**Touristen-verein 'Die Naturfreunde'.**) 1897–*date.* *Vienna.*

NATURFREUND. Zeitschrift für Tausch und Kauf von Naturgegenständen. 1895–*date.* *Vienna.*

NATURFREUND UNGARNS. *See* MAGYARHONI TERMÉSZETBARÁT.

NATURGESCHICHTE DER DREI REICHE.
1832–49. (All pub.) *Stuttgart.*

NATURGESCHICHTE IN MAHLEREY BESTEHEND.
[? 1750]. *2 vols. 8vo. no t.-p. pl. n.p.*
A unique collection of eighteenth-century oil-paintings of animals (including birds) by an unknown artist, with manuscript description of each picture.

NATURGESCHICHTE DER VÖGEL aus den besten Schriftstellern mit Merianischen und neuen Kupfern.
1774–84. *4 vols. folio. pp. 1152 (paged continuously).* Vol. I, *26 pl. 2 indexes.* Vol. II, *28 pl. 2 indexes.* Vol. III, *5 pl. 2 indexes.* Vol. IV, *5 pl. 2 indexes.* *Heilbronn.*
A rare and useful compilation as a source-book for information about birds prevailing at the end of the eighteenth century and for popular beliefs about them. Plate No. 36 is missing in the present copy.

NATURHISTORIE-SELSKABET.
1790–1810. Skrivter. *Copenhagen.*

NATURHISTORIKER. 1879–86? *Vienna.*

NATURHISTORISCHE GESELLSCHAFT. *Nürnberg.*
1852–*date.* Abhandlungen.
1882–1905. Jahresbericht.
1912–*date.* Jahresberichte.
1907–13. Mitteilungen.
1906–19. Sitzungsberichte.
1923–*date.* Sitzungsberichte.

NATURHISTORISCHE GESELLSCHAFT IN COLMAR. *See* SOCIÉTÉ D'HISTOIRE NATURELLE DE COLMAR.

NATURHISTORISCHE GESELLSCHAFT ZU HANOVER.
1850–*date.* Jahresbericht.

NATURHISTORISCHE HEFTE. *Budapest.*
Természetrajzi Füzetek.
1877–1902. Nos. 1–25 (all pub.).

NATURHISTORISCHER UND CHEMISCH-TECHNISCHE NOTIZEN. 1854–62. *Berlin.*

NATURHISTORISCHER VEREIN FÜR ANHALT. *Dessau.*
1840–73. Verhandlungen.

NATURHISTORISCHER VEREIN IN AUGSBURG. *See* NATURWISSENSCHAFTLICHER VEREIN FÜR SCHWABEN UND NEUBURG.

NATURHISTORISCHER VEREIN FÜR DAS GROSSHERZOGTHUM HESSEN UND UMGEBUNG. *Darmstadt.*
1847–8. Verhandlungen.

NATURHISTORISCHER VEREIN 'LOTOS'. *See* LOTOS.

NATURHISTORISCHER VEREIN ZU PASSAU. *See* NATURWISSENSCHAFTLICHER VEREIN, PASSAU.

NATURHISTORISCHER VEREIN DER PREUSSISCHEN RHEINLANDS UND WESTFALENS. *Bonn.*
1906–*date.* Sitzungsberichte.
1844–*date.* Verhandlungen.

NATURHISTORISCHER VEREIN VON WISCONSIN. *See* WISCONSIN NATURAL HISTORY SOCIETY.

NATURHISTORISCHES HOFMUSEUM, VIENNA. *See* VIENNA—NATURHISTORISCHES STAATSMUSEUM.

NATURHISTORISCHES LANDESMUSEUM IN KÄRNTEN. *See* KLAGENFURT.

NATURHISTORISCHES MUSEUM, HAMBURG. *See* ZOOLOGISCHES STAATSINSTITUT UND ZOOLOGISCHES MUSEUM ZU HAMBURG.

NATURHISTORISCHES MUSEUM, LÜBECK.
1886–*date.* Bericht.

NATURHISTORISCHES STAATSMUSEUM. (**K.-K. Naturhistorisches Hofmuseums.**) *Wien.*
1886–*date.* Annalen.
1917–*date.* Denkschriften.
1924–*date.* Veröffentlichungen.
1924–*date.* Verein der Freunde des Naturhistorischen Museums, Vienna.

NATURHISTORISCH - MEDIZINISCHER VEREIN. *Heidelberg.*
1857–72. Verhandlungen.

1873–*date.* Verhandlungen. New series.

NATURHISTORISKE FORENING, CHRISTIANA.
1849–60? Skrifter.

NATURHISTORISK FORENING I KJÖBENHAVN. *See* DANSK NATURHISTORISK FORENING, COPENHAGEN.

NATURHISTORISK TIDSSKRIFT. *Copenhagen.*
1837–43. Series 1.

1844–9. Series 2.

1861–84. Series 3.

NATURKUNDE. ARNHEM. 1843–?60. (All pub.)

NATURSCHÄTZE DER HEIMAT. *Freiburg.*
1920–2. 1–3 (all pub.).

NATUR UND GESELLSCHAFT. 1913–*date.* *Berlin.*

NATUR UND HAUS. *Berlin, Dresden.*
1892–1909. Merged into Blaetter für Aquarien- und Terrarienkunde.

NATUR UND HEIMAT. *Godesberg-Bonn.*
1910–14. As Fuer Naturfreunde.

1915–17. New series.

NATUR UND KULTUR.
1903–11. Jhrg. 1–8. *München.*

NATUR UND KUNSTKABINET. 1755–6. *Jena.*

NATUR UND MENSCH. 1920–3. *Bern.*

NATUR UND OFFENBARUNG. 1855–*date.* *Münster.*

NATUR UND SCHULE. 1902–7. *Leipzig, Berlin.*

NATUR UND STAAT. 1903–18. *Jena.*

NATUR UND TECHNIK. 1919–*date.* *Zürich.*

NATURVETENSKAPLIG BOKSAMLING.
1869. *Stockholm.*

NATURVIDENSKABELIGE OG MATHEMATISKE AFHANDLINGER. 1904–*date.* *Copenhagen.*

NATURWISSENSCHAFTEN, DIE. 1913–*date.* *See also* NATURWISSENSCHAFTLICHE RUNDSCHAU; HUMBOLDT, and KOSMOS. *Berlin.*

NATURWISSENSCHAFTLER. *See* NATURWISSENSCHAFTLICHE WOCHENSCHRIFT.

NATURWISSENSCHAFTLICHE ABHANDLUNGEN. 1826–8. (All pub.) *Tübingen.*

NATURWISSENSCHAFTLICHE ABHANDLUNGEN AUS DORPAT. 1823. *Dorpat.*

NATURWISSENSCHAFTLICHE ABHANDLUNGEN. 1847–51. *Vienna.*

NATURWISSENSCHAFTLICHE GESELLSCHAFT, BAYREUTH.
1911–14. Bericht.

NATURWISSENSCHAFTLICHE GESELLSCHAFT 'ISIS' ZU DRESDEN. *See* ALLGEMEINE DEUTSCHE NATURHISTORISCHE ZEITUNG.

NATURWISSENSCHAFTLICHE LANDESDURCHF. V. BÖHMEN. *See* ARCHIV FÜR DIE NATURW. LANDESDURCHF. V. BÖHMEN.

NATURWISSENSCHAFTLICHE MONATSHEFTE FÜR DEN BIOLOGISCHEN, CHEMISCHEN, GEOGRAPHISCHEN UNTERRICHT. 1907–*date.* *Leipzig.*

NATURWISSENSCHAFTLICHER ANZEIGER DER ALLGEMEINEN SCHWEIZERISCHEN GESELLSCHAFT FÜR DIE GESAMMTEN NATURWISSENSCHAFTEN. 1817–22. *Bern.*

NATURWISSENSCHAFTLICHER BEOBACHTER. *Frankfurt-a-M.*
1859–1922.

1859–1905. As Zoologischer Garten.

1906–20. As Zoologischer Beobachter.

NATURWISSENSCHAFTLICHE RUNDSCHAU. *Brunswick.*
1886–1912. (Superseded by Naturwissenschaften.)

NATURWISSENSCHAFTLICHER VEREIN ZU ASCHAFFENBURG.
1884–1907. Mitteilungen.

NATURWISSENSCHAFTLICHER VEREIN DER BAYERISCHEN RHEINPFALZ. *See* POLLICHIA.

NATURWISSENSCHAFTLICHER VEREIN FÜR BIELEFELD UND UMGEGEND.
1908–*date.* Bericht.

NATURWISSENSCHAFTLICHER VEREIN ZU BREMEN.
1868–*date.* Abhandlungen.

1870–9. Beilage.

Jahresbericht. *See* ABHANDLUNGEN.

See also BEITRAEGE ZUR NORDWESTDEUTSCHEN VOLKS- UND LANDESKUNDE.

NATURWISSENSCHAFTLICHER VEREIN, DÜSSELDORF.
1884–1911/13. Mitteilungen.

NATURWISSENSCHAFTLICHER VEREIN IN ELBERFELD.
1847–*date.* Jahres-berichte.

NATURWISSENSCHAFTLICHER VEREIN FÜR DAS FÜRSTENTUM LIPPE.
See MITTEILUNGEN AUS DER LIPPISCHEN GESCHICHTE UND LANDESKUNDE.

NATURWISSENSCHAFTLICHER VEREIN FÜR DAS FÜRSTENTUM LÜNEBERG.
1855. Denkschriften.
1852–64. Jahresbericht.
1865–*date.* Jahreshefte.

NATURWISSENSCHAFTLICHER VEREIN, GREIFSWALD. *See* NATURWISSENSCHAFTLICHER VEREIN VON NEU-VORPOMMERN UND RÜGEN.

NATURWISSENSCHAFTLICHER VEREIN FÜR DAS GROSSHERZOGTHUM HESSEN UND UMGEBUNG. **1847–8.** *Darmstadt.*

NATURWISSENSCHAFTLICHER VEREIN, HAMBURG.
1846–*date.* Abhandlungen.
1875–81. Verhandlungen. New series.
1893–1921. Verhandlungen. Series 3.
1922–*date.* Verhandlungen. Series 4.

NATURWISSENSCHAFTLICHER VEREIN DES HARZES ZU BLANKENBUR.
1840–62. Berichte.

NATURWISSENSCHAFTLICHER VEREIN DES HARZES IN WERNIGE RODE.
1886–96. Schriften. (Includes Jahresbericht.)

NATURWISSENSCHAFTLICHER VEREIN, KARLSRUHE.
1862–*date.* Verhandlungen.

NATURWISSENSCHAFTLICHER VEREIN, LANDSHUT, BAVARIA.
1864/6–1910. Bericht.

NATURWISSENSCHAFTLICHER VER EIN, MAGDEBURG.
1871–84. Jahresbericht.
1885–1907. Jahresbericht und Abhandlungen.

NATURWISSENSCHAFTLICHER VEREIN VON NEU-VORPOMMERN UND RÜGEN. *Greifswald.*
1869–*date.* Mitteilungen.

NATURWISSENSCHAFTLICHER VEREIN, OSNABRÜCK.
1870/1–*date.* Jahresbericht.

NATURWISSENSCHAFTLICHER VEREIN, PASSAU.
1857–*date.* Bericht.

NATURWISSENSCHAFTLICHER VEREIN DER PROVINZ POSEN. *See* DEUTSCHE GESELLSCHAFT FÜR KUNST UND WISSENSCHAFT IN POSEN.

NATURWISSENSCHAFTLICHER VEREIN, REGENSBURG.
1849–64. Abhandlungen.
1886/7–*date.* Berichte.
1847–87. Correspondenz-Blatt.

NATURWISSENSCHAFTLICHER VEREIN DES REGIERUNGSBEZIRKES FRANKFURT A. D. ODER. *See* HELIOS; SOCIETATUM LITTERAE.

NATURWISSENSCHAFTLICHER VEREIN FÜR SACHSEN UND THÜRINGEN IN HALLE.
1856–61. Abhandlungen.
(?)–1897. Bericht.
1848–52. Jahresbericht.

NATURWISSENSCHAFTLICHER VEREIN FÜR SCHLESWIG-HOLSTEIN, KIEL.
1873–*date.* Schriften.

NATURWISSENSCHAFTLICHER VEREIN FÜR SCHWABEN UND NEUBURG. *Augsburg.*
1848–*date.* Bericht.
1848–85. As Bericht des Naturhistorischer Verein in Augsburg.

NATURWISSENSCHAFTLICHER VEREIN FÜR SCHNEEBERG. To **1880** as Naturwissen. Verein zu Schneeberg.
1878–1909. Mitteilungen.

NATURWISSENSCHAFTLICHER VEREIN FÜR STEIERMARK, GRATZ.
1862–*date.* Mitteilungen.

NATURWISSENSCHAFTLICHER VEREIN DES TRENCSINER COMITATES, TRENCSIN, HUNGARY.
1878–1910. Jahresheft.

NATURWISSENSCHAFTLICHER VEREIN AN DER UNIVERSITÄT WIEN.
See VIENNA, UNIVERSITÄT.

NATURWISSENSCHAFTLICHES MUSEUM, CREFELD.
1909–19? Mitteilungen.

NATURWISSENSCHAFTLICHE - TECHNISCHE MUSEUM. **1885–9.** *Jena, Dusseldorf.*

NATURWISSENSCHAFTLICHE WOCHENSCHRIFT. (Deutsche Gesellschaft für Volkstümliche Naturkunde in Berlin.) **1887–1922.** (All pub.) *Berlin.*

NATURWISSENSCHAFTLICHE ZEITFRAGEN.
1910. Hrsg. v. Riem. *many pl.* *Godesberg.*

NATURWISSENSCHAFTLICHE ZEITSCHRIFT LOTOS. *See* LOTOS.

NATURWISSENSCHAFTLICH - MEDIZINISCHER VEREIN IN INNSBRUCK.
1870–*date.* Berichte.

NATUUR. 1844–7. *Batavia.*

NATUUR. 1765–97? *The Hague.*

NATUUR. 1859–60. (All pub.) *Leyden.*

NATUUR. 1881–*date.* *Utrecht.*

NATUURBESCHOUWER OF VERSAMELING VAN DE NIEUWSTE VERHANDELINGEN OVER DE DREI RYKEN DER NATUUR. 1779–82? *The Hague.*

NATUURKUNDE. 1843–60. *Arnhem.*

NATUURKUNDIGE COMMISSIE IN OOST-INDIË VERHANDELINGEN. 1839–44. *Leyden.*

(K.) NATUURKUNDIGE VEREENIGING IN NEDERLANDSCH-INDIË. *Batavia.*
1856–60. Verhandelingen. (All pub.)
1889–92. Voordrachten. (All pub.)

NATUURKUNDIGE VERHANDELINGEN, UTRECHT. *See* PROVINCIAAL UTRECHTSCH GENOOTSCHAP VAN KUNSTEN EN WETENSCHAPPEN.

NATUURKUNDIGE VERHANDELINGEN OF VERZAMELING VAN STUKKEN DER NATUURKUNDE. 1767? *Amsterdam.*

NATUURKUNDIGE VOORDRACHTEN. *See* MAATSCHAPPIJ DILIGENTIA.

NATUURKUNDIG GENOOTSCHAP TE GRONINGEN VERSLAG. 1862–*date*?

NATUURKUNDIG TIJDSCHRIFT VOOR NEDERLANDSCH-INDIË. 1850–*date.* *Batavia, Weltevreden.*

NATUURLEVEN. 1902–*date.* *Meppel, The Hague.*

NATUUR MONUMENTUM. *See* TROPISCHE NATUR.

NATUUR-SCHEIKUNDIGE VERHANDELINGEN. 1809? *Amsterdam.*

NATUURVRIEND. 1900–3. *Zutfen.*

NATUURWETENSCHAPPELIJK TIJDSCHRIFT. 1920–*date.* *Antwerp.*

NATUURWETENSCHAPPELYKE GENOOTSCHAP VAN GHENT. *See* NATURA, GHENT.

NAUMANN, JOHANN ANDREAS [1744–1826].
1789. Der Vogelsteller oder die Kunst allerley Arten von Vögeln . . . zu fangen, etc. *8vo. 3 figs.* *Leipzig.*

A scarce item, with descriptions of captured and other birds. Probably the first of this author's separate publications; not listed in the *Cat. Br. Mus. (Nat. Hist.).*

1795–1803. Naturgeschichte der Land u. Wasservögel des nördlichen Deutschlands und angränzender Länder, etc. *4 vols. 8vo. text.* Nachträgen 1–3. *atlas. 1 vol. 192 col. pl.* (J. A. Aue.) *Koethen.*

This early, fundamental and famous treatise by one of the best known ornithologists of his day, is very rare when provided, as in the present copy, with all the coloured plates. It is an original and very useful work covering the avifauna of middle and northern Europe. From time to time several editions, printings, and combinations of text and plates of this fundamental treatise appeared until recent date, all of them well done but difficult satisfactorily to catalogue. Practically all the issues are in the McGill libraries.

****, and **NAUMANN,** J. F., **BLASIUS,** J. H., **BALDAMUS,** EDUARD, **STURM,** FRIEDRICH.
1820–60. Johann Andreas Naumann's mehrerer gelehrten Gesellschaften Mitgliede, Naturgeschichte der Vögel Deutschlands, nach eigenen Erfahrungen entworfen . . . aufs Neue herausgegeben von . . . J. F. Naumann. *12 vols.* 1820–44. *8vo.*

1860. Dreizehnter Theil: Nachträge, Zusätze und Verbesserungen von J. H. Blasius . . . E. Baldamus . . . und . . . F. Sturm. *2 vols. in 1. 8vo.*
14 vols. 8vo. num. col. pl. Leipzig and Stuttgart.

A comprehensive account of the birds of Germany, distinct from the work of 1795–1803, although the earlier book laid the foundations of the present one. The volumes, apparently, were issued regularly according to the dates on the title-pages with the exception of vol. XIII, which consists entirely of supplementary notes and discussions. This latter was issued in parts until the death of Naumann in 1857, when it was completed by Blasius, Baldamus, and Sturm. Considerable uncertainty exists as to the exact dates of these parts but probably 1846–53 would cover them, whilst the title-page of the latter portion of the volume by Blasius, Baldamus, and Sturm bears the date of 1860.

1905–?9. Naturgeschichte der Vögel Mitteleuropas; neu bearb. von C. Berg [und Andere] hrsg. von C. R. Hennicke. *12 vols. folio. col. pl. indexes to all vols.* *Gera.*

Vol. I. 1905. *pp. xli+253. 32 pl. (30 col.).*
Vol. II. **n.d.** *pp. iv+340. 30 col. pl.*
Vol. III. **n.d.** *pp. vi+393. 48 col. pl.*
Vol. IV. **n.d.** *pp. vi+368. 49 col. pl.*
Vol. V. **n.d.** *pp. iv+334. 75 pl. (71 col.).*
Vol. VI. **n.d.** *pp. (5)+337. 32 pl. (31 col.).*
Vol. VII. **n.d.** *pp. (4)+207. 20 col. pl.*
Vol. VIII. **n.d.** *pp. (4)+276. 28 col. pl.*
Vol. IX. **n.d.** *pp. (4)+408. 34 col. pl.*
Vol. X. **n.d.** *pp. (4)+307. 29 col. pl.*
Vol. XI. **n.d.** *pp. vi+343. 42 col. pl. index.*
Vol. XII. **n.d.** *pp. (4)+274. 30 pl. (27 col.). index.*
Anhang: Ueber den Haushalt der nordischen Seevögel Europas.
This modern and enlarged edition of the early German classic was issued in about 150 parts. It comprises over 4,000 pages of text with 2,500 colored and many other plain figures, the latter in the text, the result of the collaboration of a numerous staff of expert ornithologists. Altogether it forms the most complete and best illustrated of any treatise on the birds of Central Europe.
The present copy is from Prof. Reichenow's library.

NAUMANN, JOHANN FRIEDRICH [1780–1857].
1815. Taxidermie; oder, Die Lehre Thiere aller Klassen am einfachsten und zweckmässigsten für Kabinette auszustopfen und aufzubewahren. *8vo. pp. 12+180. pl.* *Halle.*

**** and **BUHLE,** C. A.
1818–28. Die Eier der Vögel Deutschlands und der benachbarten Länder; nebst einer tabellarischen Uebersicht der Naturgeschichte der hier vorkommenden Vögel. *folio. 10 col. pl.* *Halle.*

An early, scarce, systematic treatise on the eggs and nests of Middle European birds, issued at intervals in five parts. A complete description on the öology and many observations about the birds themselves are given in tabular form. The plates were colored by the author himself. The volume in hand is a beautifully preserved and finely bound copy from the Philips Library.

1820–60. *See* NAUMANN, JOHANN ANDREAS.

1836. *See* GRAEFE, HEINRICH.

1848. Taxidermie, etc. *2 Auf. 8vo. illust. Halle.*

The first edition of this rare but important and well-illustrated work of about 200 pages was published in 1815. The present treatise has been revised and enlarged. There is no copy of the latter mentioned in the *Cat. Br. Mus. (Nat. Hist.).*

n.d. Die Vögel von Mittel-Europa und ihre Eier. *See* GRÄSSNER, FÜRCHTEGOTT.

NAUMANNIA. Archiv für die Ornithologie vorzugsweise Europas. Organ des Deutschen Ornithologischen Verein.
1851–4. Vols. I–II. *col. pl.* Edited by E. Baldamus. Continued as (Second series) Naumannia, Journal für die Ornithologie, etc.

1855–8. Jahrg. III–VIII. *col. illust.* In 1860 Naumannia was absorbed by the Journal f. Ornithologie.

NAUTILUS. 1886–*date*. *Philadelphia, Boston.*

NEALE, E.
1900. The golden eagle. (Painting.) *See* ORIGINAL DRAWINGS.

NEBRASKA ACADEMY OF SCIENCE. *Lincoln.*
1891–*date*. Publications.

NEBRASKA ORNITHOLOGISTS' UNION. *Neligh and Lincoln.*
1899–1915. Proceedings. Continued in Wilson Bulletin.

1919–30. Letters of Information.

NEBRASKA UNIVERSITY. Zoological Laboratory.
1894–*date*. Studies.

NECKER, LOUIS ALBERT [1786–1861].
1864. Mémoire sur les Oiseaux des environs de Genève, précédé d'une Notice biographique sur l'auteur d'après J. D. Forbes. *8vo.* *Genève.*
The original work of 111 pages appeared in 1823.

NEDERLANDSCHE AVICULTURA, Gewijd aan Hoenderfokkerij. Vogelteelt, Jacht en Visscherij. Organ der Vereeniging van Vogelliefhebbers van dien naam. Bijblad van het Weekblad Floralia. *4to.* *Assen.*
The dates of the following volumes are quoted from *Naturae Novitates*: Jaarg. I, 1886; Jaarg. II, 1886; Jaarg. III, 1887; Jaarg. IV, 1889. Jaarg. V, 1890; Jaarg. VI, 1891; Jaarg. VII, 1892; Jaarg. VIII, 1893. [Suspended?]
The Compiler has not been able to secure additional information regarding this periodical.

NEDERLANDSCHE DIERKUNDIGE VEREENIGING. *Leyden.*
1872–85. Tijdschrift.

1885–*date*. Tijdschrift. New Series.

1876–*date*. Verslag—Zoölogisch Station.

NEDERLANDSCHE NATUURHISTORISCHES VEREENIGING, HAARLEM. *See* NATURA, HAARLEM.

NEDERLANDSCHE ORNITHOLOGISCHE VEREENIGING. Verslagen en Mededeelingen.
1904–11. Nos. 1–8. *illust., col. and plain.* Continued (1912) as Ardea.
The *Nederlandsche Ornithologische Vereeniging* was organized March 30, 1901, in Amsterdam, with Baron Schauburg as President and A. A. van Pelt Lechner as Secretary. Among its most active members are (and were) Drs. Joh. Büttikofer, A. J. Blaauw, J. Th. Oudemans and E. D. Van Oort, C. Kerbert and Prof. J. Ritzema Bos. Although mostly concerned with meetings of the Association and with Dutch Ornithology, the Proceedings included quite often papers on foreign bird lore. The (colored) wrappers of the first seven numbers were adorned by pictures of an Egret; later, with (slight) alteration in title-page, wrappers were furnished plain. There are a few illustrations, and those mostly in the text and generally uncolored.

NEDERLANDSCHE VEREENIGING TOT BESCHERMING VAN VOGELS. Verslagen en Mededeelingen, 1924–1928. *8vo. figs. in text.* *Amsterdam.*
This is an account, issued by the local society, describing the various Dutch activities interested in the protection of birds throughout the Netherlands.

NEDERLANDSCH-INDISCHE NATUURHISTORISCHE VEREENIGING. *See* TROPISCHE NATUUR.

NEDERLANDSCH-INDISCHE VEREENIGING TOT NATUURBESCHERMING. *Batavia.*
1914–*date*. Jaarverslag. *See also* NATUUR MONUMENTUM.

(K.) NEDERLANDSCH INSTITUT VAN WETENSCHAPPEN, Letterkunde en Schoone Kunsten. *Amsterdam.*
1841–6. Instituut of verslagen en mededeelingen.

1847–51. Jaarboek.

1806–46. Proces-verbaal.

1848–52. Tijdschrift voor de Wis- en Natuurkundige Wetenschappen.

NEDERLANDSCH NATUR EN GENEESKUNDING CONGRES. 1887–1930. *See* HANDELINGEN VAN HET NEDERLANDISCH, etc. *Haarlem.*

NEDERLANDSCH TIJDSCHRIFT VOOR DE DIERKUNDE. (K.) Zoölogisch Genootschap Natura artis Magistra. 1863–84. *Amsterdam.*

NEDERLANDSCH TIJDSCHRIFT V. NATUURK. 1921–30.

NEFF, JOHNSON A.
1929. A Study of the Economic Status of the Common Woodpeckers. *pp. 104. illust.* *Oregon.*
A privately printed tract.

NEHRKORN, ADOLPH.
1899. Katalog der Eiersammlung nebst Beschreibungen der aussereuropäischen Eier. *8vo. pp. 7+256. 4 col. pl. T. of c.* *Braunschweig.*
A partially appraised list of the eggs of 3,546 avian species nesting outside of Europe, mostly from the author's own collection. The first edition of this important work, a second printing having been issued in 1910.

1910. Katalog der Eiersammlung nebst Beschreibungen der aussereuropäischen Eier. 2te Auflage. *8vo. pp. 7+449. 4 col. pl.* *Berlin.*
An enlargement of the 1899 edition in which the author catalogues the eggs of 5,440 species and races of non-European birds. The copy in hand is a present from the author to Prof. Reichenow, who has added a few marginal notes.

1914. Nachträge zu Nehrkorn's Eierkatalog. *8vo. pp. 128. 6 col. pl.* *Berlin.*
A supplementary report to the author's *Katalog der Eiersammlung*, 1910. Additional species and subspecies are listed, making in all 5,822.

NEHRLING, HEINRICH.

1889–91. Die Nordamerikanische Vogelwelt. Unter kunsterischer Mitwirkung von Prof. Robert Ridgway in Washington, Prof. A. Göring in Leipzig, und Akademiemaler Gustav Mützel in Berlin. *4to. pp. 40+637. 36 pl. (col.) 10 figs. in text. index.* *Milwaukee.*

This extensive work appeared in 13 parts, the first in 1889 (*Auk*, July 1889), and has been, on the whole, well received by ornithologists. The English edition appeared in two volumes about the same time but with a different title.

1889–96. Our native birds of song and beauty, being a complete history of all the songbirds, flycatchers, hummingbirds, swifts, goatsuckers, woodpeckers, kingfishers, trogons, cuckoos, and parrots, of North America. *2 vols. 4to.* Vol. I, *pp. l+371. 18 pl. (col.). 8 figs. index.* Vol. II, *pp. (2)+452. 18 pl. (col.). index.* *Milwaukee.*

A popular account of North American Birds issued in 16 parts, the first appearing simultaneously with the German one-volume printing in 1889, but not completed until 1896. It contains the same matter and illustrations as the German edition. Elliott Coues spoke in warm terms of the work and reviewed it in the *Auk* for January 1890, not in the July issue of 1889 as stated by Zimmer in the *Ayer Catalogue*, p. 462.

NELSON, EDWARD WILLIAM [1855–].

1883. *See* UNITED STATES. VOYAGE TO ALASKA.

1887. Report on Natural History collections made in Alaska between 1877–81. *4to. 12 col. pl.* *Washington.*

Author's special edition.

******** and **TRUE,** F. W.

1887. Mammals of Northern Alaska. Report of collections made for the U.S. Govt. between 1877 and 1881. *4to.* *Washington.*

Although a Federal report this treatise is occasionally found separately bound as an author's reprint. It is a very important contribution to the subject.

1899. Natural History of the Tres Marias Islands, Mexico. *See* MERRIAM, CLINTON HART.

[*c.* **1918**]. Wild animals of North America; intimate studies of big and little creatures of the mammal kingdom. (National Geographic Society.) *4to. pp. 230. illust. col. pl.* *Washington.*

1926. Our migratory wild fowl and present conditions affecting their abundance. *4to. pp. 17. T. of c.* *Washington.*

A revision of an address made by the writer before the Outdoor Recreation Conference, at Washington, D.C., on January 21, 1926.

NELSON, HARRY LEVERETT [1858–89].

1889. Bird-songs about Worcester. *12mo. pp. (4)+131. index.* *Boston.*

NELSON, THOMAS HUDSON [1856–1916].

1907. The birds of Yorkshire. *paged continuously. 2 vols. 8vo. pp. 843.* Vol. 1, *front. (col.). 75 pl. 2 figs.* Vol. 2, *front. (col.). 86 pl. 2 figs. 2 indexes.* *London.*

NELTJE BLANCHAN (*pseud.*). *See* DOUBLEDAY, *Mrs.* N. BLANCHAN (born DE GRAFF.).

NEMNICH, PHILIPP ANDREAS [1764–1822].

[**1793–8**]. Allgemeines Polyglotten-Lexicon der Naturgeschichte (Wörterbücher der naturgeschichte in der deutschen, holländischen, dänischen, schwedischen, englischen, französischen, italienischen, spanischen und portugesischen Sprache). *13 pts. bound in 7 vols. 4to. paged continuously.* *Hamburg.*

A valuable work of reference.

NESTER UND EIER DER VÖGEL.

1866. New ed. *8 col. pl. See* ANONYMOUS.

NEUCHÂTEL. Société des sciences naturelles.

1836–1914. Mémoires. (All pub.)

1867–1930. Bulletin. Index 1–25.

NEUE ABHANDLUNGEN AUS DER NATURLEHRE . . . MECHANIK. (K. Svenska Veten., Stockholm). 1780–91.

NEUE ARCHIV FÜR ZOOLOGIE UND ZOOTOMIE. *Berlin.*

1807. Continues Archiv für Zoologie und Zootomie.

NEUE BEITRÄGE ZUR NATUR- UND ARZNEI-WISSENSCHAFT. 1782–6. *Berlin.*

NEUE JAHRBUCH FÜR MINERALOGIE, GEOLOGIE UND PALAEONTOLOGIE.

1830–*date.* *Heidelberg, Stuttgart.*

NEUE NORDISCHE BEYTRÄGE ZUR PHYSIKALISCHEN UND GEOGRAPHISCHEN ERD- UND VÖLKERBESCHREIBUNG, NATURGESCHICHTE UND OEKONOMIE. 1781–96. *St. Petersburg, Leipzig.*

NEUE SCHRIFTEN D. GESELLSCHAFT NATURFORSCHENDER FREUNDE, BERLIN. 1794–1803. (All pub.) *See* GESELLSCHAFT . . . FREUNDE.

NEUES THIER-BUCH; oder, Merckwürdige Beschreibung der Thieren und Vögeln, worinnen deren unterschiedliche Arth, grösse und kleine Gestalt, Alter, Stärck, Farb, Lebens-Manier, Eigenschaft Veränderung und Fortpflanzung zu ersehen.

1718. Pub. by C. Wussin. Anonymous. *8vo. pp. 6+216. pl. and text-figs.* *Prag.*

NEUE ZOOLOGISCHE GESELLSCHAFT IN FRANKFURT-A-M. *See* NATURWISSENSCHAFTLICHER BEOBACHTER.

NEUGEBAUER, LUDWIG ADOLPH [1821–90].

n.d. Systema venosum avium cum eo mammalium et inprimis hominis collatum. *4to. pp. 182. pl. n.p.*

A treatise on the venous system of birds and mammals as compared with that of man.

NEUMANN, E. and **KIRSCH,** O. M.

n.d. Unsere gefiederten Freunde aus Wald und Flur. *12mo. pp. 64. 32 col. pl.* *Berlin.*

A popular little book (mostly on cage-birds) illustrated by rather crude colored plates.

NEUMANN, LOUIS GEORGES [1846–].

1896. Biographies vétérinaires. *8vo. illust.* [O. 6743.] *Paris.*

This author has written several monographs on the treatment of animal diseases, one at least of which, after passing through several French editions, has been translated into English.

1909. Parasites et Maladies parasiticales des Oiseaux. *Paris.*

NEUMAYR, MELCHIOR [1845–90].
1889. Die Stämme des Thierreiches. *Vienna.*
The natural philosophy of extinct animals is here treated by an eminent Austrian but, unfortunately, it was never completed. Much of the published material relates to invertebrate paleontology.

NEUMEISTER, GOTTLOB.
1837. Das Ganze der Taubenzucht. *4to. pp. 4+32. 15 col. pl.* *Weimar.*
The first (rare) edition of a well-known monograph on domestic pigeons, their varieties and culture. From the Cabanis-Reichenow collection; in the original, engraved covers.

NEUNZIG, KARL.
1911. Der Kanarienvögel. *See* RUSS, K. F. O.

1913. Dr. Karl Russ' Einheimische Stubenvögel. *See* RUSS, K. F. O.

1921. Die fremdländischen Stubenvögel. *8vo. 42 col. pl. 400 figs.* *Magdeburg.*

n.d. Gefiederte Hausfreunde. *2 vols. 8vo. 97 figs. in text. T. of c.* Vol. I. [Domestic birds and their care. *pp. 70.*] Vol. II. [Foreign birds and their care. *pp. 68.*] *Magdeburg.*

NEVEU-LEMAIRE, MAURICE [1872–] and **GRANDIDIER,** G.
1911. Notes sur les mammifères . . . de l'Amérique du Sud. *8vo. illust. pl.* *Paris.*

NEWBERRY, JOHN STRONG [1822–92].
1855–9. *See* UNITED STATES. PACIFIC RD. SURVEY.

1889. Paleozoic Fishes of North America. (Monographs U.S. Geologic Survey, vol. XVI.) *4to. pp. 340. 52 pl. illust. text.* *Washington.*
Occasionally found as a separate publication or author's reprint—a scientific contribution to an important subject.

NEWBIGIN, MARION ISABEL.
1895. Outlines of zoology. 2nd ed., revised and enlarged. *See* THOMSON, J. A.

1898. Colour in nature; a study in biology. *8vo. pp. xii+344. bibliogr. 2 indexes.* *London.*

1931. Life by the Seashore. *8vo. pp. 296. illust.* *London.*

NEW BRITISH BIRD FANCIER, etc. *8vo.*
n.d. (*ca.* **1780**). Anonymous.

NEW BRUNSWICK NATURAL HISTORY SOCIETY. *See* NATURAL HISTORY SOCIETY OF NEW BRUNSWICK.

NEWCASTLE-ON-TYNE. *See* NATURAL HISTORY SOCIETY OF NORTHUMBERLAND, etc.

NEW ENGLAND ZOOLOGICAL CLUB. *Cambridge.*
1899–*date.* Proceedings.

NEW JERSEY AND PENNSYLVANIA AUDUBON BULLETIN.
1913–30. Editor, Beecher S. Bowdish, Newark, N.J. Irregular. After 1914 continued as the *New Jersey Audubon Bulletin.*
This is one of a superior class of Audubon Society publications, devoted not only to the cause of bird protection and culture, but containing several articles of value to the serious student of ornithology.

NEW JERSEY NATURAL HISTORY SOCIETY. *Trenton.*
1886–91. Journal.

NEW JERSEY STATE MUSEUM. The birds of New Jersey, etc. *See* STONE, WITMER.

NEWMAN, EDWARD [1801–76].
1843–76. *See* the ZOOLOGIST. Conducted by E. Newman.

1849. The letters of Rusticus [i.e. Edward Newman, Waring Kidd, and J. D. Salmon] on the natural history of Godalming. *8vo. pp. 8+164. illust.* *London.*
These letters are extracted from several magazines, given a separate title, and provided with a preface. The present copy belonged to L. H. Irby and has pencilled notes by that author. The birds of Godalming are discussed in every chapter.

1861. Birdnesting: the nest and eggs of every British Bird. *8vo. pp. iv+52.* *London.*
A practical handbook by a well-known naturalist. The above is probably the (rare) first edition of a work that has been several times reprinted and rewritten.

1866. *See* MONTAGU, GEORGE. (Dictionary.)

NEWMAN, HORATIO HACKETT [1875–].
1920. Vertebrate zoölogy. *8vo. pp. xiii+432. 217 figs. bibliogr. index.* *New York.*
First edition of an admirable textbook. A second, identical, printing appeared in 1921.

1929. Laboratory guide and review manual for general zoölogy. *8vo. pp. 10+87. illust.* *New York.*

NEW MEXICO UNIVERSITY. Biological Series.
1899–1919. Bulletin, 1–3 (all pub.).

NEWPORT NATURAL HISTORY SOCIETY. *Newport, R.I.*
1883/4–1891/9. Proceedings (all pub.).

NEW SOUTH WALES.
1898. Sea fisheries . . . with scientific report on the fishes by E. R. Waite. *8vo. pp. 2+45. pl. map.* *Sydney.*

NEW SOUTH WALES LINNEAN SOCIETY. *See* LINNEAN SOCIETY OF NEW SOUTH WALES.

NEW SOUTH WALES NATURALISTS' CLUB. *Sydney.*
1903–6. Memoirs (all pub.).

NEW SOUTH WALES, NATURALISTS' SOCIETY OF. *See* AUSTRALIAN NATURALIST.
1906–*date.*

NEW SOUTH WALES ROYAL SOCIETY. *See* ROYAL SOCIETY OF NEW SOUTH WALES.

(A) NEW SYSTEM OF THE NATURAL HISTORY OF QUADRUPEDS, BIRDS, FISHES AND INSECTS. **1791–2.** *See* ANONYMOUS.

NEWTON, ALFRED [1829–1907].

[**1860**]. Suggestions for forming collections of birds' eggs. *8vo. pp. 10–22. 21 text-figs.* *Washington.*

Special reprint. A copy of this paper by Newton follows that of Joseph Henry on the same subject published in the *Smithsonian Miscellaneous Collections*, pp. 1–9, 1860. The present paper gives more elaborate details as well as illustrations for the preparation and preservation of oological specimens.

1860. Suggestions for forming collections of birds' eggs. Reprinted, with additions, from the circular of the Smithsonian institution of Washington. *8vo. pp. 15. 23 figs.* *London.*

A republication in England—with some slight alterations—of the pamphlet that originally followed the one by Joseph Henry on the same subject in the *Smithsonian Miscellaneous Collections*.

1862. A list of the birds of Europe. *See* BLASIUS, J. H.

1862. On the zoology of ancient Europe: a paper read before the Cambridge Philosophical Society, 31st March 1862. *8vo. pp. 31.* *London.*

[**1864**]. On the irruption of Pallas's sandgrouse (Syrrhaptes paradoxus) in 1863. *8vo. pp. 38. front. (map).* *(London.)*

1864–1907. Ootheca Wolleyana. *See* WOLLEY, J.

1870. Extracts from the Record of zoological literature, vols. 1–6, containing the portions relating to aves from 1864–69. *6 vols. in 1. 8vo.* *London.*

Although it is not the policy of the Compiler to annotate extracts from periodical literature, yet the present volume deserves particular notice because it is a presentation copy from the distinguished author to Dr. Elliott Coues. The latter has made elaborate marginal notes on the various birds for the purpose of compiling a part of his bibliography of ornithology, many of the excerpts having been, with Dr. Newton's approval, incorporated in the text of the *Instalments*.

1871–83. A history of British birds. *See* YARRELL, W.

1873–4. *See* HARTLAUB and LINDEMAN, *eds.*

1875. Notes on Birds . . . [of] Greenland. *8vo.* *London.*

The above is part V of the Great Britain and Ireland Admiralty Manual of the natural history of Greenland.

1879. Hawking in Norfolk. *See* LUBBOCK, R.

1880. Mémoire sur quelques nouvelles espèces d'oiseaux des côtes de Barbarie. *See* DESFONTAINES, R. L.

1880. *See* TUNSTALL, MARMADUKE.

1883. *See* AUDOUIN, JEAN VICTOR.

******** and **others.**

1893–6. A dictionary of birds, by Alfred Newton, assisted by Hans Gadow, with contributions from Richard Lydekker, C. S. Roy and R. W. Shufeldt. *4 pts. 8vo. paged continuously. pp. 1088. map. 700 figs. in text. 2 indexes.* *London.*

Of the value of this work Coues wrote (*Auk*, 1897, p. 236): 'Far and away the best book ever written about birds.' It abounds with all manner of information relating to the various phases of ornithology, conveniently arranged in alphabetical order with cross-references. The anatomical paragraphs were written by Gadow and are distinguished by having the titles in italics. Roy contributed an article on flight; Lydekker, several paragraphs on fossils; and Shufeldt, accounts of several North American birds; these notes being signed by their respective contributors. Possibly the Introduction—a brief history of ornithology—is the most valuable part of the work. A second edition, unabridged, was issued in 1899.

n.d. Ornithology. Reprinted from the 'Encyclopaedia Britannica' by special permission. For private circulation. *4to. pp. 50. index.* *London.*

This reprint contains copious footnotes and marginal references.

NEWTON, EDWARD.

1879. *See* ROYAL SOCIETY OF LONDON.

******** and **GADOW,** HANS.

1893. On additional bones of the Dodo and other extinct birds of Mauritius obtained by Théodore Sauzier. *4to. pp. 22. 5 pl.* *London.*

NEWTON NATURAL HISTORY SOCIETY, NEWTONVILLE, MASS.

1889–90. Bulletin.

NEW-WORLD SCIENCE SERIES.

1920. Zoology, a text book. *See* COCKERELL, T. D. A.

NEW YORK ACADEMY OF SCIENCES. *New York.*

1877–*date*. Annals.

1823–77. Annals of Lyceum of Natural History.

1906–*date*. Bulletin.

1895–1905. Memoirs.

1913. Occasional Papers.

1870–4. Proceedings of Lyceum of Natural History.

1881–97. Transactions.

NEW YORK LINNEAN SOCIETY. *See* LINNEAN SOCIETY OF NEW YORK.

NEW YORK STATE.

1895–1903. Reports of the Forest Fish and Game Commission. Vols. I–IX. *4to. pl. many col.* *Albany.*

NEW YORK STATE LIBRARY. *Albany.*

1863–93. Annual Reports.

1872–82. Catalogue.

NEW YORK STATE MUSEUM.

1847–1918. Annual Report.

1889–*date*. Memoir.

1887–*date*. Museum Bulletin.

NEW YORK STATE MUSEUM OF NATURAL HISTORY. *See* NEW YORK STATE MUSEUM.

NEW YORK ZOOLOGICAL SOCIETY.

1896–*date*. Annual Report.

1897–*date*. Zoological Society Bulletin.
See also ZOOLOGICA and ZOOPATHOLOGICA.

1900–*date*. Official guides.

1925. A child's book of wild animals (formerly pub. as Wild animal stamp primer); illust. by photographs taken in the New York zoological park by E. R. Sanborn. 3rd ed. *8vo. pp. 93. 98 figs. (50 col.). T. of c.* *[New York.]*

NEW ZEALAND INSTITUTE. *Wellington.*

1910–*date*. Bulletin.

1908–11. Proceedings.

1868–*date*. Transactions and Proceedings.

NEW ZEALAND JOURNAL OF SCIENCE. *Dunedin.*

1882–5.

1891. New issue.

NEW ZEALAND NATIVE BIRD PROTECTION SOCIETY.

1919–30. Bulletin. *8vo.* *Wellington, N.Z.*

The organ of a society that is active and influential in the Dominion, containing a number of interesting articles on bird life in New Zealand as well as appeals to the citizens to prevent as far as possible the extinction of several species that are in danger of extermination.

NICE, MARGARET MORSE and **NICE,** LEONARD BLAINE.

1924. (The) birds of Oklahoma. *8vo. pp. 122. 3 pl. (1 map). bibliogr. append. index.* *Norman, Okla.*

Author's reprint. An annotated list of 361 species and subspecies observed in the State, with notes as to distribution, nesting, etc., and a bibliography.

NICHOLS, L. NELSON.

[1917]. Birds of America. *See* PEARSON, T. G.

1918. History of Long Island. *See* THOMPSON, BENJAMIN FRANKLIN.

NICHOLSON, E. M.

1926. Birds in England: an account of the state of our bird-life and a criticism of bird protection. *8vo. pp. 20+324.* *London.*

1927. How birds live; a brief account of bird life in the light of modern observation. *12mo. pp. x+139. 7 col. pl. 6 append.* *London.*

NICHOLSON, FRANCIS.

[1881–3]. [On birds collected in Java, Sumatra and Borneo by H. O. Forbes.] Four excerpts from *Ibis*, specially bound in one volume. [*London.*]

The present copy is from Canon Tristram's library.

1889. Sundevall's Tentamen. *See* SUNDEVALL, C. J.

NICHOLSON, HENRY ALLEYNE [1844–99].

1870. Advanced text-book of zoology for the use of schools. *12mo. pp. xii+340. 153 figs. glossary index.* *Edinburgh.*

1871. Introductory Text-book of Zoology. *Edinburgh and London.*

1872. A manual of palæontology for the use of students with a general introduction on the principles of palæontology. *8vo. pp. 16+601. illust.* *Edinburgh.*

1874. Report upon the palæontology of the province of Ontario. *8vo. pp. 133. 8 pl.* *Toronto.*

Contains descriptions of the fossils collected during . . . 1873, in the Devonian rocks of Western Canada.

1878. A manual of zoology for the use of students, with a general introduction on the principles of zoology. 5th ed. *8vo. pp. xiv+800. 394 figs. bibliogr. glossary. index.* *Edinburgh.*

****** and LYDEKKER,** RICHARD.

1889. Manual of palaeontology. 3rd ed. *2 vols. 8vo. illust.* *Edinburgh.*

1896. The ancient life-history of the earth. A comprehensive outline of the principles and leading facts of palæontological science. *8vo. pp. xviii +407. 270 figs. append. glossary. index.* *New York.*

NICHOLL, A. M. C.

1916. Adventures after birds at Osborne, being a camera record of some of the birds found near the college. *4to. pp. (2)+194. 21 pl. 84 figs.* *Newport, I.W.*

NICOLL, MICHAEL JOHN [d. 1925].

1908. Three voyages of a naturalist, being an account of many little-known islands in three oceans visited by the 'Valhalla'. *8vo. pp. xxvi+246. front. 56 pl. 4 figs. (maps). index.* *London.*

1912. Wild birds of the Giza gardens, 1898–1911. *8vo. pp. 32. illust.* (Egypt. Zoological Service, publication no. 23.) *Cairo.*

Author's reprint. A good local list of Egyptian birds.

1919. Handlist of the birds of Egypt. Government press. *8vo. pp. xii+119. 32 pl. (9 col.). 2 append. index.* *Cairo.*

****** and MEINERTZHAGEN,** R.

1930. Nicoll's Birds of Egypt. *2 vols. 4to. 38 col. pl. index.* *London.*

An up-to-date, complete, systematic account of Egyptian birds from the earliest times to the present, superseding other treatises on the subject. The work was completed by Col. Meinertzhagen on the death of Nicoll, who was (1906–24) Assistant Director of the Zoological Gardens at Giza.

NICOLS, ARTHUR.

1877. The puzzle of life and how it has been put together; a short history of vegetable and animal life upon the earth from the earliest times. *12mo. pp. x+148. front. 11 pl.* *London.*

1883. Zoological notes on the structure, affinities, habits, and mental faculties of wild and domestic animals. *8vo. pp. vii+370. 3 pl. 7 figs. index.* *London.*

NIDIOLOGIST, THE. Published by Henry Reed Taylor. Alameda, Cal. An Illustrated Monthly Magazine Devoted to the Study of Ornithology, and with special references to the Nidification of North American Birds. Name subsequently changed to *Nidologist.*

1893–7. Vols. I–VI. *8vo.* Suspended and merged in the *Popular Science Monthly.*

This well-edited magazine practically continued the defunct *Ornithologist and Oologist.* It published during its relatively short life many papers of importance from the pens of scientific ornithologists throughout the country.

NIDOLOGIST, THE. *See* THE NIDIOLOGIST.

NIEDEN, Fr.

1910. *See* ADOLF FRIEDRICH OF MECKLENBURG.

1923. Amphibia. Anura I. (Das Tierreich.) *8vo. pp. xxxii+584.* *Berlin.*

1926. Anura. II. Engystomidae. (Das Tierreich, vol. 49.) *pp. 110. 55 figs.* *Berlin.*

NIEDERLAENDISCHES ARCHIV FÜR ZOOLOGIE. *Leyden, Leipzig.*
1871–82, and Supplement (all pub.).

NIEDERSÄCHSISCHER ZOOLOGISCHER VEREIN. *Hanover.*
1908–18. Jahresbericht.

NIEREMBERG, Juan Eusebio (1595–1658).
1635. Historia Naturae, maxime peregrinae, libris XVI. distincta, etc. *folio. pp. 6+502+102. illust. in text.* *Antverpiae.*
A classic work of some value describing a medley of animals, plants, and minerals—some of them new to the zoological science of the day. This volume is becoming quite rare.

NIERSTRASZ, H. F. **1927.** *See* IHLE, J. E. W.

NIKOLSKY, A. M.
1915. Faune de la Russie. Vol. I. Reptiles. Chelonia and Sauria. *pp. 532. 9 pl.* (In Russian.) *Petrograd.*
1916. Faune de la Russie. Reptiles. II. Ophidia. *pp. 349. 7 pl.* (In Russian.) *Petrograd.*
1918. Faune de la Russie. Amphibia. *pp. 309. 4 pl.* (In Russian.) *Petrograd.*

NILSSON, And.
1877. Studier öfver foglarnes käkmuskler. *8vo. pl.* (Lund Universitet thesis.) *Lund.*

NILSSON, R.
[**1920**]. Förteckning över Sveriges ornitologiska litteratur rörande Svenska fågelfaunan. *8vo. pp. 160. indexes.* *Lund.*
A useful catalogue of Swedish ornithological literature, arranged under authors, subjects, periodicals, monographs, etc. From Prof. Reichenow's library.

NILSSON, Sven [1787–1883].
1817–21. Ornithologia Svecica. *2 pts. 8vo. col. illust.* (Wanting.) *Havniae.*
Among the first writings of this Scandinavian naturalist whose studies included all the fauna of Northern Europe.
1832–40. Illuminerade figurer till Skandinavens fauna. *2 vols. 4to. 200 col. pl.* Issued in 20 pts. *Lund.*
A fine example of zoological atlas with descriptive text.
1858. Skandinavisk Fauna. Foglarna. 3rd ed. *2 vols. 8vo.* Vol. I, *pp. xxxiv+580. index.* Vol. II, *pp. 580. index.* *Lund.*
This classic treatise on Scandinavian birds furnishes a list of both local and zoological names with their synonymy, characters, habits, distribution, nidification, etc.

NIMES. Société d'étude des science snaturelles.
1897–1930. Bulletin.

NIPHUS, Augustus.
1497. De sensu agente, etc. *See* AVERROËS. Destructiones destructionum.

NITZSCH, Christian Ludwig [1782–1837].
1811. Osteografische Beiträge zur Naturgeschichte der Vögel. *8vo. pp. 10+122. 11 pl.* *Leipzig.*
On the osteology of birds treating, among other subjects, the pneumatic bones of the head, vertebrae, limbs, etc. From the Cabanis-Reichenow collection.
1829. Observationes de avium arteria carotide communi. *8vo. pp. (2)+36.* *Halae.*

******** and **BURMEISTER,** Hermann.
1840. System der Pterylographie; nach seinen handschriftlich aufbewahrten Untersuchungen verfasst von Hermann Burmeister. *4to. pp. xii+228. 10 pl.* *Halle.*
The manuscript of this work was prepared by Nitzsch (as a revision of his earlier work, *Pterylographia avium pas prior*, only one part of which was published in 1833) and edited by Burmeister, with the addition of an extra plate (on the structure of the feather) and explanation of same by the editor.
1867. Pterylography. *4to. pp. x+181. 10 pl. index.* *London.*
The present English translation by W. S. Dallas was edited by P. L. Sclater who added footnotes of his own, with an appendix.

NI WAN [16th cent.].
n.d. Ch'ün t'an ts'ai yü; An encyclopedic work, including notes on animals, insects, birds, etc., chüan 1. *29×16 cm.* [G.]

NIZAMU'D DÎN AHMAD.
1679. Midmār-i-dānish. Treatise on the horse. *12mo. pp. 143.* In Persian.
MS. copy of a contemporary (MS.) work dedicated to Abbas II of Persia. The scribe invokes a curse on any one who misappropriates this copy.
ca. **1750.** Midmār-i-dānish. (Persian manuscript.) A treatise on the horse, its diseases and their treatment, on amulets for horses, etc.
It was composed in A.D. 1660 and dedicated to Abbas II of Persia. A neat copy. Purchased in Shiraz, Persia, for the Blacker Library by W. Ivanow in Oct. 1928. There is also an earlier MS. copy in the Blacker Library.

NOACK, Th. **1891–1901.** *See* STUHLMANN, F. L.

NOBLE, G. K.
1925. The Evolution and Dispersal of Frogs. (Wanting.)
A valuable monograph on amphibian zoogeography and development.

NOBLE, Heatley.
1898. A list of European birds; including all those found in the western palaearctic area, with a supplement. *8vo. 66 fol.* *London.*
A list of European birds (with scientific and vernacular names) to 1898, printed on one side of paper only, leaving the opposite side for notes.

NOBLEVILLE, Arnault de Louis Daniel [1701–].
1751. Aëdologie, ou, Traité du rossignol franc, ou chanteur. *12mo. pp. 7+156. 2 pl. T. of c.* *Paris.*
A rare and curious little book on the nightingale.
1759. Aëdologia of verhandeling d. nachtegaal, etc. *pl.* *Amsterdam.*
A Dutch translation of this popular work.
1773. Aëdologie ou traité du Rossignol franc, ou chanteur, etc. *Paris.*
A late edition of the rare (?) *editio princeps*, 1751.

NORD-BOEHMISCH VOGEL- UND GEFLÜGELZEITUNG.
1888–96. Vols. I–IX [all issued?].
This periodical (published by the *Ornitholog. Verein für d. nord. Böhmen in Reichenberg*) belongs to a numerous class of publications—half scientific, half popular—that have done much to spread a knowledge of ornithology among a whole people, and as such are deserving of encouragement by systematic naturalists.

NORDENSKIÖLD, NILS ADOLF ERIK [1832–1901].

1881. The voyage of the Vega round Asia and Europe; with a historical review of previous journeys along the north coast of the Old world. Translated [from the Swedish] by Alexander Leslie. *2 vols. 8vo.* Vol. I, *pp. xxv+524. front. (portr.). 2 pl. 8 maps (fold., 1 col.). 521 figs.* Vol. II, *pp. xvii+482. front. (portr.). 1 pl. 2 maps (col. fold.). 132 figs. index.* *London.*

An interesting account of the voyage by which the North-East Passage was at last achieved, and Asia and Europe circumnavigated for the first time. There are many references to animals throughout the work.

1882. The voyage of the Vega round Asia and Europe. *1 vol. 8vo.* *New York.*

The American print of the London edition, 1881, identical contents, published in one volume.

1882–7. Vega-expeditionens vetenskapliga iakttagelser bearbetade af delatagare i resan och andra forskare. *5 vols. 8vo. illust. pl. tab. diagr. maps.* *Stockholm.*

1885. Studien etc. . . . durch meine Reise im hohem Norden.

A popular German account of the author's Vega voyages. Edition with a supplement.

NORDENSKIÖLD, NILS ERIK [1872–].

1926. Die Geschichte der Biologie; ein Überblick [from the Swedish] by Guido Schneider. *8vo. pp. 8+648.* *Jena.*

A very important and useful review.

1929. The History of Biology. A Survey. Tr. from the Swedish by L. B. Eyre. *8vo. pp. 616. illust. index.* *London.*

A scholarly treatment of the subject by a competent writer, who reviews the progress of the science from the earliest to the latest times. Of much interest are his sketches (following in the footsteps of Goethe) of the lives and writings of many great naturalists, from Aristotle to Haeckel.

NORDENSKJÖLD, NILS OTTO GUSTAF [1869–].

1905–*date*. Wissenschaftliche Ergebnisse der Schwedischen Südpolar-Expedition, 1901–3. *4to.* *Stockholm.*

Vol. V contains most of the zoological reports of this well-known Voyage. K. A. Andersson devoted (Lief. 2) 58 pages, 10 plates, and 2 col. maps to the higher antarctic fauna, issued in 1905; [A. J. E.] E. Lönnberg treated the birds (Lief. 5) in pp. 9 and the fishes (Lief. 6) in pp. 70 with 5 col. plates and a number of text illustrations, both reports published in 1905.

NORDHOFF, CHARLES BERNARD [1887–] and **HALL,** J. N.

1921. Faery lands of the South seas, &c. *See* HALL, J. N. and NORDHOFF, C. B.

NORDISKA NATURFORSKARE OCH LÄKAREMÖTET.

1903. Förhandlingar. *Helsingfors.*

NORDISK TIDSSKRIFT FOR FISKERI; ny Raekke af Tidsskrift for Fiskeri.

1874–82. (All pub.) *Kjøbenhavn.*

NORFOLK AND NORWICH NATURALISTS' SOCIETY. *Norwich, England.*

1869/74–*date*. Transactions.

NORFOLK BIRD CLUB, CAMBRIDGE, MASS. *See* WREN.

NORGES SVALBARD OG ISHAVS-UNDERSÖKELSER.

1928–30. Skrifter om Svalbard og Ishavet. *4to.* *Oslo.*

NORGUET, ANATOLE DE MADRE DE [–1898].

1868. Études d'ornithologie européenne. Des races locales. *8vo. pp. 147. index.* *Lille.*

A scientific discussion of local avian races as observed in Europe. An excerpt of unknown origin from the Cabanis-Reichenow. collection.

NORMAN, HARRY [1859–] and **others.**

1919. Aviaries, bird-rooms & cages, their construction and furnishing. With the following appendices: Hints on cage making. By W. Laskey. Foreign bird-keeping in aviaries. By Wesley T. Page. *8vo. pp. 112. 52 figs. T. of c. 2 append.* *London.*

n.d. The British bird manual containing directions for hand-rearing, keeping and exhibiting the most popular British birds. *2 vols. 8vo.* Vol. 1, *pp. 6+93. 8 pl. 1 fig.* Vol. 2, *pp. 4+99. 9 pl. 4 figs. T. of c.* *London.*

NORMAN, J. R.

1931. A History of Fishes. *8vo. pp. 16+463. 9 pl. 147 text figs.* *London.*

NORRIS, J. PARKER.

1866. A catalogue of eggs in the cabinet of J. P. Norris. Privately printed. *8vo. pp. (4)+42 ll.* *Philadelphia.*

(K.) NORSKE FREDERIKS UNIVERSITET. *Christiana.*

1867–9. Aarsberetning.

NORSK ORNITHOLOGISK TIDSSKRIFT.

Organ of the Norsk Ornithologisk Forening.

1920–*date*. *4to.* Editor: H. Tho. L. Schaanning, Stavanger, Norway.

The first issues of this journal are unusually well printed and illustrated. Although most of the papers deal with Norwegian avifauna several describe other northern types. The Editor contributes several of the essays, including an account of a central observation station attached to the Stavanger Museum. Schaanning and C. E. Petersen also furnish short articles.

NORTH, ALFRED JOHN.

1889. Descriptive catalogue of the nests and eggs of birds found breeding in Australia and Tasmania. *8vo. pp. 8+416. 21 pl. index.* *Sydney.*

Although dated 1889 this catalogue was not issued until 1890. A second, much enlarged edition (in 4 vols.) appeared in 1901–14. There are two appendices to this work always printed and bound with it.

1896. A list of the insectivorous birds of New South Wales. *8vo. pp. 18. 10 pl. (8 col.).* *Sydney.*

Describes species: (1) exclusively insectivorous, and, unless otherwise stated, beneficial; (2) those partially insectivorous, also beneficial; (3) those both insectivorous and frugivorous—more or less harmful. Part II was published in 1897 (q.v.).

1896. *See* HORN, W. A. Report on the . . . Scientific Expedition.

1897. A list of the insectivorous birds of New South Wales. Part II. *8vo. pp. (2)+12. 4 pl. (col.).* Author's reprint. *Sydney.*

A continuation (pt. 2) of the pamphlet commenced in 1896, and yet to be completed. From *Agricultural Gazette of N.S. Wales*, January 1897.

1901–9. Nests and Eggs of Birds breeding in Australia and Tasmania. *2 vols. (7 pts.). pl.* *Sydney.*

1904–7. Nests and Eggs . . . of Australian Birds. *Sydney.*

A second edition containing vol. I and parts 1 and 2 of vol. II.

1914. *See* BR. ASSOC. AD. SCIENCE.

NORTH AMERICAN FAUNA. 1889–1930. *See* UNITED STATES. DEPT. OF AGRICULTURE. BIOLOGICAL SURVEY DIVISION. NORTH AMERICAN FAUNA.

NORTHAMPTONSHIRE NATURAL HISTORY SOCIETY AND FIELD CLUB, NORTHAMPTON, ENGLAND. 1880–*date*.

NORTH CAROLINA. Geological Survey.
1893–1930. *Raleigh and Winston.*

NORTH CHINA BRANCH OF ROYAL ASIATIC SOCIETY OF GREAT BRITAIN AND IRELAND. *See* ROYAL ASIATIC SOCIETY . . . NORTH CHINA BRANCH.

NORTHEASTERN BIRD-BANDING ASSOCIATION BULLETIN.
1922–*date*. Vols. I–V. *Boston, Mass.*

NORTHROP, JOHN I. [1861–91].
1910. A naturalist in the Bahamas: John I. Northrop, October 12, 1861–June 25, 1891; a memorial volume, ed., with a biographical introduction by Henry Fairfield Osborn. *8vo. pp. xv+ 281. front. (portr.). 36 pl. (2 col., 1 fold.). 1 map. 13 figs. index.* *New York.*

NORTH STAFFORDSHIRE FIELD CLUB.
1866–*date*. Transactions and Annual Report.

NORTHUMBERLAND. *See* NATURAL HISTORY SOCIETY OF NORTHUMBERLAND.

NORTHUMBERLAND SEA-FISHERIES COMMITTEE.
Dove Marine Laboratory, Cullercoats.
1896–1911. Report on Scientific Investigations.
1912–*date*. Report.

NORTHWESTERN ORNITHOLOGICAL ASSOCIATION. *See* OREGON NATURALIST.

NORTON, A. H.
1901. Birds of the Bowdoin Expedition to Labrador. *Portland, Me.*

Author's extract.

NORWEGIAN NORTH-ATLANTIC EXPEDITION, 1876–8.
1880–7. Pts. I–XVIII in 20. *4to.*

NORWEGIAN NORTH POLAR EXPEDITION, 1893–6.
1900–6. (The) Norwegian north polar expedition, 1893–1896. Scientific results. *See* NANSEN, F.

NORWELL, J. STEWART and **SMITH,** W. R.
n.d. Illustrations of zoology. *See* SMITH, W. R. and NORWELL, J. S.

NOS OISEAUX.
1913–30. Bulletin de la Société Romande pour l'étude et la Protection des Oiseaux. Published by Alfred Richard. Neuchâtel, Switzerland, generally six times a year. Often double numbers. *illust.*

This periodical, as its title indicates, is one of several Swiss magazines devoted to the protection of local birds and to the study of popular ornithology. Contributions are by local naturalists and the journal is well edited and printed.

NOTES FOR OBSERVERS [in ornithology].
? 1918–23. Dept. of Agriculture, State of Massachusetts. E. H. Forbush, Director of Ornithology and Editor. Issued as a supplement of *Items of interest* (q.v.). Discontinued on March 15, 1923. Mimeographed. Dated but not numbered.

Although hardly rising to the dignity of a scientific periodical yet these 'Notes', having been issued regularly and containing much useful and interesting material, find a place in this *Catalogue.*

NOTES AND QUERIES FOR NATURALISTS. 1857. *London, Rochester.*

NOTES ON RHODE ISLAND ORNITHOLOGY. Pub. in Bristol, R.I. Edited by Reginald Heber Howe, Jr., Brookline, Mass. Quarterly. *3 vols. 8vo.* **1900–2.** (All pub.)

The purpose of this short-lived journal, as stated in one of its title-pages, is 'Furthering interest in ornithology in the State of Rhode Island'. The scheme, so far as it was carried out, was realized in several well-chosen papers on local avifauna.

NOTIZEN AUS DEM GEBIETE DER NATUR- UND HEILKUNDE. *Erfurt, Weimar.*
1821–36. Series 1.
1837–46. ,, 2.
1847–9. ,, 3.
Continued as Tagsberichte über die Fortschritte der Natur- und Heilkunde.

NOTT, JOHN FORTUNÉ.
1886. Wild animals photographed and described. *4to. pp. 568. 43 illust.* *London.*

The author, a Major in the Canadian militia, describes and pictures mostly animals that inhabit the Dominion.

NOTTINGHAM NATURALISTS' SOCIETY.
1886–90. Transactions and Annual Report.

NOUVEAU DICTIONNAIRE D'HISTOIRE NATURELLE APPLIQUÉE AUX ARTS ETC.
1816–19. *36 vols. 8vo. Second edition. Illust.* *Paris.*

A very important work of reference. The first edition was issued 1803–4.

NOUVELLES ARCHIVES DU MUSÉUM D'HISTOIRE NATURELLE DE PARIS.
1865–74. 1st Ser. 1–10.
1875–88. 2nd Ser. 1–10.
1889–98. 3rd Ser. 1–10.
1899–1908. 4th Ser. 1–10.
1909–30. 5th Ser.

NOVARA, VOYAGES OF THE. 1864–75.
Zoologischer Theil. *2 vols. 4to.* *Wien.*

A very important report. Säugethiere, J. Zelebor; Vögel, A. von Pelzeln; Reptilien u. Amphibien, F. Steindachner; Fische, R. Kner.

NOVA SCOTIAN INSTITUTE OF SCIENCE. *Halifax.*
1863/6–*date*. Proceedings and Transactions.
1863–90. As Proc. and Trans. of Nova Scotian Inst. of Natural Science.

NOVITATES ZOOLOGICAE. (Tring, England, Zoological Museum.) 1894–*date*. *London.*

A very important and useful journal, admirably edited and illustrated. On the editorial staff have been Lord Rothschild, Ernst Hartert, and K. Jordan.

NOVOROSSIĬSKOE OBSHCHESTVO ESTESTVOĬSPYTATELEĬ. *Odessa.*

1873–4. Protokoly.

1872–*date*. Zapiski.

French title: Société des Naturalistes de la Nouvelle Russie.

NOZEMAN, CORNELIS [1721–85?] and **others.**

1770–1829. Nederlandsche vogelen; volgens hunne huishouding, aert, en eigenschappen beschreeven door Cornelius Nozeman . . . Alle naer 't leven geheel nieuw en naeuwkeurig geteekend, in 't koper gebragt, en natuurlyk gekoleurd door, en onder opzicht van Christiaan Sepp en zoon. *5 pts. folio. 200 col. pl.* *Amsterdam.*

An important, popular, and apparently the first comprehensive work on the birds of Holland, with hand-colored plates of all the species and in some cases the nests and eggs as well. It was begun by Nozeman and Christian Sepp. After the death in 1789 of the former it was completed by Houttyn. The copy in hand is incomplete.

NUBLING, E.

1921. The satin bower bird . . . some observations. *8vo. pp. 27. front. 6 figs.* Author's reprint from the *Emu*, 1921. *Melbourne.*

A very interesting account of the building of bird bowers, and the behaviour of the birds in them. Autographed copy from the author to Dr. Casey Wood.

NUNQUAM OTIOSUS. 1870–80. (All pub.) *Dresden.*

This periodical was the organ of the *Dresdener Gesellsch. für Bot. und Zoologie.*

NUOVI ANNALI DELLE SCIENZE NATURALI. *Bologna.*

1838–54. Continues Annali di Storia Naturale.

NUREMBERG. *See* NÜRNBERG.

NÜRNBERG. Naturhistorische Gesellschaft.

1852–1924. Abhandlungen.

1889–1930. Jahresbericht. (1906–13 not published; in their places Mitteilungen 1–7. All pub.)

NURUL-LAH YĀR JĀNĪ.

ca. **1760.** Bāz-nāma. *4to. ff. 112. 12 col. illust.* Persian MS. A detailed treatise on falconry.

This rare manuscript is a copy of a still earlier script, based on the writer's personal experiences, he having been chief falconer at the court of Bahadur Shah Muhammed Muazzam, son of the Emperor Aurungzeb.

NUTSHELL SERIES.

A dozen or more tractates by practical aviarists on our commoner cage birds, with instructions as to their care.

NUTTALL, THOMAS [1786–1859].

1832–4. A manual of the ornithology of the United States and of Canada. The Land Birds. *Cambridge*, 1832. The Water Birds, *Boston*, 1834. *2 vols. 12mo.* Vol. 1, *pp. viii+693. 53 woodcuts. index.* Vol. 2, *pp. vii+627. 61 woodcuts. append. index.*

The original edition of Nuttall's work, one of the early landmarks in the history of American ornithology, with descriptions of the birds, their habits, etc., based partly on the author's observations and partly on the writings of Wilson, Audubon, and others. A second edition of vol. I was issued in 1840.

1840. A manual of the ornithology of the United States and of Canada. 2nd ed., with additions. The land birds. *pp. viii+832. 53 woodcuts. append. index.* *Boston.*

A revised edition of the first volume of the earlier work of the same title, with 'A good many new species, and many additional observations, derived from my friend Audubon, as well as the result of a journey made by myself and Mr. Townsend across the continent to the coast of the Pacific'. The second volume often found associated with this one (as in the present case), either is a copy of the original edition or is printed from the original plates without alteration of any kind, including the date.

****** and CHAMBERLAIN,** MONTAGUE.

1891. A popular handbook of the ornithology of the United States and Canada; based on Nuttall's Manual. By Montague Chamberlain. Vol. 1. The Land Birds. Vol. 2. Game and Water Birds. *2 vols. 8vo.* Vol. 1, *pp. xlviii+473. front.* (*col.*). *88 woodcuts.* Vol. 2, *pp. vii+431. front.* (*col.*). *86 woodcuts. index.* *Boston.*

The woodcuts in many cases are copied from Yarrell's *History of British Birds*, 1837–43; some of them are new. There is a later edition of the same work.

1894. A popular handbook of the ornithology of eastern North America, by Montague Chamberlain. *2 vols. 8vo.*

These volumes are textually and otherwise identical with the edition of 1891, except that the title-page is changed as above. The editor seems to have eased his literary conscience by printing on the half-title-page 'Ornithology of the United States and Canada', an instance, one might observe, where the old name of 'bastard-title' seems particularly appropriate.

[1903]. (A) popular handbook of the birds of Canada and the United States. New revised and annotated edition by Montague Chamberlain. *2 vols. 8vo.* Vol. 1, *pp. xliv+473. front.* (*col.*). *9 pl.* (*col.*). *87 woodcuts.* Vol. 2, *pp. ix+431. front.* (*col.*). *9 pl.* (*col.*). *86 woodcuts. index.* *Toronto.*

This new edition differs from that of 1894 in its title, in the elimination of the preface, and the addition of 20 colored plates representing 105 species of birds; the letterpress is the same.

NUTTALL ORNITHOLOGICAL CLUB, CAMBRIDGE. *Mass.*

1886–*date*. Memoirs.

1876–83. Bulletin. Continued as The Auk.

NUYENS, A.

1886. De vogelwereld; handboek voor liefhebbers van kamer- en parkvogels. *2 vols. folio.* Vol. I, *pp. 14+156. 27 pl. 157 col. lith.* Vol. II, *pp. 4+100. 22 pl. 109 col. lith.* *Gröningen.*

This rare Dutch work is not listed in any of the usual catalogues. It is quite above the average of popular treatises on cage birds and other species known to dealers. So far as the Compiler can learn only two volumes were issued.

NUZHAT-NĀMA-I-'ALA'I. *See* SHĀMARDĀN B. ABĪ'L-KHAYR, 1404.

NYT MAGAZIN FOR NATURVIDENSKABERNE. *Oslo.*

1836–74. Series 1.

1875–81. ,, 2.

1882–*date*. ,, 3.

Continues Magazin for Naturvidenskaberne.

OATES, C. G.

1889. Matabele land and the Victoria Falls, etc. *See* OATES, FRANK.

OATES, EUGENE WILLIAM [1845–].

1883. A handbook to the birds of British Burmah, including those found in the adjoining state of Karennee. *2 vols. 8vo.* Vol. 1, *pp. 8+431.* Vol. 2, *pp. xxx+493. map (col. fold.). addend. index.* *London.*

Detailed descriptions of habits, distribution, and bibliographic references to 780 species.

1889–90. The nests and eggs of Indian birds. *See* HUME, A. O.

****** and BLANFORD,** WILLIAM THOMAS.

1889–98. The Fauna of British India, including Ceylon and Burma. **Birds,** vols. 1–2, Oates; vols. 3–4, Blanford. *4 vols. 8vo.* Vol. 1, *pp. xx+556. 171 figs. 2 indexes.* Vol. 2, *pp. x+407. 107 figs. 2 indexes.* Vol. 3, *pp. xiv+450. 106 figs. 2 indexes.* Vol. 4, *pp. xxi+500. 127 figs. bibliogr. append. 2 indexes.* *London.*

The ornithological numbers of a series of eight volumes, including two on fishes, one on reptiles and batrachians, one on mammals, and the present four on birds, which contain a complete account of the birds of India, Ceylon, and Burma, with habits, plumages, and distribution, etc., of the various species. A second edition on the birds, revised by E. C. Stuart Baker, was begun in 1922 and is still in course of publication.

1901–12. Catalogue of the collection of birds' eggs in the British museum . . . [Vols. 1–4 compiled by E. W. Oates.] *See* BRITISH MUSEUM (NATURAL HISTORY).

OATES, FRANK [1840–75].

1882. Matabele land and the Victoria Falls. *See* SHARPE, R. B.

****** and others.**

1889. Matabele land and the Victoria Falls; a naturalist's wanderings in the interior of South Africa, from the letters & journals of the late Frank Oates . . . Ed. by C. G. Oates. 2nd ed. *pp. xlix+433. front. (portr.). 22 pl. (19 col.). 4 maps (1 col.). 41 figs. append. index.* *London.*

Originally published in 1881, the present edition containing much additional matter, especially on birds by Bowdler Sharpe.

OBER, FREDERICK ALBION [1849–].

1880. Camps in the Caribbees: the adventures of a naturalist in the Lesser Antilles. *8vo. pp. xviii+366. 33 figs. append.* *Boston.*

An exploration of these islands with the especial view of studying their bird life. Supposed new species are placed in an Appendix, pp. 347–66.

1899. Camps in the Caribbees. *Boston.*

Second edition, practically identical with the first edition.

OBERHESSISCHE GESELLSCHAFT FÜR NATUR- UND HEILKUNDE. *Giessen.*

1847–1905. Bericht.

1904/6–30. Naturwissenschaftliche Abteilung.

OBERHOLSER, HARRY CHURCH [1870–].

1899. The flammulated screech owls. Megascops flammeolus (Kaup) and Megascops flammeolus Idahoensis Merriam. *8vo. pp. 16.* Author's excerpt.

An attempt to show that the flammeolus group either exhibits a surprising range of individual variation, or will at some future time be found separable into several more or less well segregated geographical races. The present material (17 specimens of these rare little Owls) is, however, entirely inadequate to warrant such division.

1905. Birds collected by Dr. W. L. Abbott in the Kilimanjaro region, East Africa. *8vo. pp. 116.* Author's reprint. *Washington.*

1905. Notes on the mammals and summer birds of Western North Carolina. *8vo. pp. 24. bibliogr.* *Biltmore, N.C.*

An annotated list of the 136 species.

1905. Outline of a classification of North American birds. For the use of students. *8vo. pp. 4.* *Biltmore, N.C.*

1914. A monograph of the genus *Chordeiles* Swainson, type of a new family of goatsuckers. *8vo. pp. vii+123. 2 pl. 4 maps. index.* (U.S. National Museum.) *Washington.*

1917. The birds of the Anamba Islands. *8vo. pp. v+75. index.* *Washington.*

Author's reprint (Bulletin 98 of the Smithsonian Institution) describing the avifauna of the islands from 212 birds secured by Doctor Abbott during two visits to the islands in 1899 and 1890.

1917. The great plains waterfowl breeding grounds and their protection. (*Yearbook of the Department of Agriculture*, 1917.) *8vo. pp. 10. 2 pl.* *Washington.*

****** and McATEE,** W. L.

1920. Waterfowl of Nebraska. *pp. 40.* *Washington.*

An admirable paper, forming Bulletin 794 of the U.S. Biological Survey.

OBSERVATEUR NATURALISTE. 1904? *Quebec.*

OBSERVER. (Agassiz Association.) 1890–7. *Portland, Conn.*

OBSERVER OF NATURE. (Kansas University Natural History Society.)
1871–6. (All pub.) *Lawrence, Kansas.*

OBSHCHESTVO LIUBITELEĬ ESTESTVOZNANĬÍA, ANTROPOLOGĬÏ I ÉTNOGRAFĬI, MOSCOW. *Moscow Universitet.*

1866–1910. Izvîestīîa.

1861–*date*. Otchet.

French title: Société Impériale des Amis des Sciences Naturelles, Anthropologiques et Ethnographiques, Moscow.

O'DONOGHUE, CHARLES HENRY [1885–].

1920. An introduction to zoology for medical students. *8vo. pp. x+501. 178 figs. index.* *London.*

OFFICE SCIENTIFIQUE ET TECHNIQUE DES PÊCHES MARITIMES. *Paris.*

1920–*date*. Notes et Mémoires.

OGAWA, MASATAKA.

1905. Notes on Alan Owston's collection of birds from the islands lying between Kiushu and Formosa. *4to. pp. 58. 3 col. pl.* *Tokyo.*

Author's reprint. This valuable report is based on 1,669 skins—95 genera and 124 species.

OGÉRIEN, (?).

1863–7. Histoire naturelle du Jura, etc. *3 vols. 8vo. illust.* *Paris.*

The author who modestly suppresses his full name, contributes in the third volume an account of the zoology of this French department.

OGILVIE, FERGUS MENTEITH [1861–1918].

1920. Field observations on British birds, by a sportsman naturalist. *4to. pp. xvi+228. 6 pl. (2 col.). 14 figs. 3 maps (1 fold.). index. London.*

[**1920**]. Field observations on British birds. *London.*

A new 'edition', identical with the first printing.

OGILVIE-GRANT, WILLIAM ROBERT [1863–].

1879–1915. *See* GODMAN and SALVIN, Biologia Americana.

1895–7. (A) hand-book to the game-birds. *2 vols. 8vo.* Allen's Naturalist's Library. Ed. by R. Bowdler Sharpe. Vol. I, *pp. xiv+304. 20 col. pl. 12 figs. append. 2 indexes.* Vol. II, *pp. xiv+316. 18 col. pl. 2 append. 2 indexes. London.*

1896–7. (A) hand-book to the game-birds. *2 vols. 12mo.* (Lloyd's Natural History, edited by R. Bowdler Sharpe.) *London.*

This edition differs from that of 1895–7 in having six extra colored plates; otherwise the whole of the text is identical with the two volumes of *Allen's Naturalist's Library* of the same date.

1901–12. Catalogue of the collection of birds' eggs in the British museum. *See* BRITISH MUSEUM (NATURAL HISTORY).

1905. Report on the birds [of the Siamese Malay states]. (Fasciculi Malayenses.) *4to. pp. 6+60. London.*

A descriptive catalogue of the birds taken during an expedition undertaken by Nelson Annandale and Herbert C. Robinson. The volume in hand has a special title and is an 'Author's Advance Copy'.

1905. Guide to the gallery of birds in the Department of Zoology of the British museum (Natural history). *8vo. pp. 5+228. 24 pl. index. London.*

1905–14. Genera Avium. *See* WYTSMAN, PAUL.

1910. Aves [with an] appendix on some points in the anatomy of Bradypterus cinnamomeus by W. P. Pycraft. *folio. pp. 208. 10 col. pl.* (*Zoological Soc. Transactions*, vol. 19, pt. 4; Ruwenzori Expedition.) *London.*

Of the collections of animals formed during this expedition probably none was so complete as that of the birds, no less than 385 species being obtained and described. Of these, 27 were new, some of which are figured in the beautiful colored illustrations by Grönvold.

1912. General index to the hand-list of the genera and species of birds. [Nomenclator avium tum fossilium tum viventium.] *5 vols. pp. 4+200+30. London.*

This is a corrected index to Sharpe's *Hand-list* (1899–1909) and, as such, is one of the most valuable of the many works of reference issued by the authorities of the British Museum.

[**1914**]**–16.** Reports on the collection made by the British Ornithologists' Union Expedition and the Wollaston Expedition in Dutch New Guinea, 1910–13. *2 vols. 4to. illust. London.*

The reports on vertebrate zoology form part of the first volume, O. Thomas dealing (1914) with the mammalia, also published in the *Trans. Zool. Soc. Lond.*, vol. xx, pp. 315–24. The Editor dealt with the birds (see *Ibis*, 1915, Jubilee Supplement 2), pp. 240, 8 col. pl.; G. A. Boulenger gave 'An Annotated List of the Batrachians and Reptiles', published in the *Trans. Zool. Soc. Lond.*, vol. xx, pp. 247–65, 4 pl., 1914; and a 'Report on the Freshwater Fishes' by C. T. Regan, *Trans. Zool. Soc. Lond.*, 1914, xx, pp. 276–86, 1 pl.

1921. Guide to the gallery of birds in the department of zoology, British Museum (Natural History). 3rd ed. *8vo. pp. 4+163. 25 pl. London.*

OGILVIE, WILLIAM ROBERT GRANT. *See* OGILVIE-GRANT, WILLIAM ROBERT.

OHIO ACADEMY OF SCIENCE. *Columbus.*

1899–1902. Special Papers. (All pub.)

1892–1902. Annual Report. (All pub.)

1892–1930. Proceedings.

After 1902 the *Annual Reports* and the *Special Papers* are included in the *Proceedings*.

OHIO JOURNAL OF SCIENCE. *Columbus.*

1900–*date.* Nos. 1 and 2 as Ohio State University Naturalist. No. 3 as Ohio Naturalist.

OHIO NATURALIST. *See* OHIO JOURNAL OF SCIENCE.

OHIO, STATE OF.

1882. Report of Progress, 1873–1906. Vols. I–VIII. *8vo and folio.* Vol. IV. Zoology. *pp. 8+1020.* (Wanting.) *Columbus.*

Although a State government report and not (as a rule) within the purview of these annotations its value as a local account of the vertebrate zoology of middle North America is so great that the Compiler wishes to refer to the extended descriptions there given of these subclasses by well-known authorities.
The report on Mammals is furnished by A. W. Brayton; Birds by J. M. Wheaton; Reptiles and Amphibia by W. H. Smith; Fishes by D. S. Jordan.

OHIO STATE UNIVERSITY. Department of Zoology and Entomology.

1899–*date.* Contributions.

L'OISEAU. Organ of the Société Nationale d'Acclimitation de France.

1920–30. Monthly. *8vo. illust. Paris.*

This periodical forms the second part of the *Revue d'Histoire naturelle appliquée*. Among the contributors are P. Carié, N. Mayer, D. Seth-Smith, J. Delacour, and other prominent ornithologists. The editorial conduct of *L'Oiseau* is directed by M. J. Delacour, the President of the Section on Ornithology.

(LES) OISEAUX; description des principales espèces des oiseaux d'Europe. n.d. *See* ANONYMOUS.

OKEN, LORENZ [1779–1851].

1817–48. Oken's Isis. *See* ISIS VON OKEN. *4to. 32 vols.*

1833–41. Allgemeine Naturgeschichte für alle Stände. *7 vols.* (often bound in more). *8vo. Stuttgart.*

Vols. IV–VII of this rare and important serial are devoted to the *Thierreich* (1833–8) and is an admirable treatise. The present title was followed (as supplements) by a *Universal Register* (1842) and *Abbildungen* (1843). A complete file of Oken's fundamentals are in the Blacker Library.

1842. Universal Register. (Allgemeine Naturgeschichte für alle Stände.) *8vo. pp. 468. Stuttgart.*

The above is often published separately from the author's *All. Naturgesch. f. alle Stände*, to which it properly belongs.

1843. Abbildungen, etc. (Allgemeine Naturgeschichte f. alle Stände.) *2 vols. folio. 164 col. pl. with descriptive letterpress. Stuttgart.*

An Atlas illustrating the above title, and sometimes published separately from it.

1843. Lehrbuch der Naturphilosophie. *8vo. pp. 12+523. Zürich.*

The above is the third edition of a classic treatise which was succeeded by several manuals and other treatises on general natural history by this famous authority.

1880. *See* ECKER, A.

OKLAHOMA.
1911–30. Publications of the University. Biological Survey, 1929. *Norman, Okla.*
Occasional papers on vertebrates. Vol. II, No. 3, contains a systematic, illustrated review of the Woodpeckers of Oklahoma by Edward Drane Crabb, pp. 105–70.

OKLAHOMA ACADEMY OF SCIENCE.
1910–30. Proceedings.

OLDHAM, CHARLES and **COWARD,** T. A.
1910. The mammals and birds of Cheshire. *See* COWARD, T. A.

1920. A practical handbook of British birds. *See* WITHERBY, H. F.

OLDS, H. W.
1900. Laws regulating the transportation and sale of game. *See* PALMER, T. S.

1901. Digest of game laws for 1901. *See also* PALMER, T. S.

OLDYS, HENRY.
1910. Pheasant raising in the United States. With a chapter on diseases of pheasants, by George Byron Morse. *8vo. pp. 40. 17 figs. T. of c. Washington.*
Author's separate from *Farmer's Bulletin*, U.S. Dept. of Agriculture, No. 390.

OLEARIUS, ADAM [1599–1671].
1674. Gottorffische Kunst-Kammer worinnen allerhand ungemeine Sachen, so theils die Natur, etc. *4to. pp. 10+80. 36 pl.* (Wanting.) *Schlesswig.*
The description (by an early traveller) of a Schleswig (Danish) Museum; of interest because it contained among the 'Ungemeine Sachen' a number of preserved animals. The work is very rare.

OLFERS, IGNAZ FRANZ JOSEPH MARIA VON [1793–1872].
1816. De vegetativis et animatis corporibus . . . animatis reperiundis commentarius. Pars 1. *8vo. pp. 6+112. pl. Berolini.*

OLINA, GIOVANNI PIETRO.
1622. Vccelliera; overo, Discorso della natvra e proprietà di diversi vccelli, e in particolare di qve' che cantano; con il modo di prendergli, conoscergli, alleuargli, e mantenergli. *8vo. pp. 8+77 ff. 66 pl. text-figs. Roma.*
The first (rare) edition of a famous work on birds, their habits, and methods of capturing some of them; with directions for their subsequent care and culture. The work is illustrated by numerous well-made etchings.

1684. Uccelliera; overo, Discorso della natura. etc. 2nd ed. *Roma.*

OLIVER, SAMUEL PASFIELD [1838–].
1909. Life of P. Commerson. Edited by G. F. S. Eliot. *8vo. illust. London.*

OLIVER, W. R. B.
1930. New Zealand Birds. *5 col. pl. 200 figs. in text. Wellington, N.Z.*
Although appealing to the popular taste, this treatise by the Director of the Dominion Museum, Wellington, N.Z., is a scientific pro..uction, describing systematically every extinct, naturalized, indigenous, and migrant species. An important section gives a general key to the avifauna while their relations to both the Europeans and the Maori are specially considered.

OLIVIER, LOUIS. **1872.** *See* CARUS, J. V.

OLPHE-GAILLARD, VICTOR AIMÉ LÉON [1825?–93].
1884–91. Contributions à la faune ornithologique de l'Europe occidentale. *4 vols. 8vo. Bayonne.*
A systematic monograph on the birds of western Europe. Issued in 40 fascicles, each separately numbered.

1896. Faune ornithologique de l'Europe occidentale. 2nd ed. *4 vols. 8vo.* Vol. I, *13 fasc.* Vol. II, *8 fasc. 2 pl.* Vol. III, *9 fasc. 1 pl.* Vol. IV, *10 fasc. Paris.*

ONTARIO NATURAL SCIENCE BULLETIN. (Wellington Field Naturalists' Club.) 1905–13. *Guelph.*

ONTARIO. Provincial Museum.
1905. Check list of the vertebrates of Ontario and catalogue of specimens. *See* NASH, C. W.

ONZE GEVEDERDE VRIENDEN. Tijdschrift voor Vogelliefhebbers, Kweekers en Handelaars.
1882–4. *3 vols.* (or more?). *Amsterdam.*
This popular journal was merged in another periodical.

ONZE GEVLEUGELDE VRIENDEN. Weekblad voor Liefhebbers en Kweekers van Pluimgedierte en vereder Dierensport, onder redactie van eenige Deskundigen en Liefhebbers. *folio.* Weekly. Popular magazine (illustrated). *Nieuwe-Niedorp, Holland.*
According to *Naturae Novitates* (an average of) 52 numbers yearly were issued between 1893 and 1913. Martinus Nijhoff of The Hague says that in 1913 it was merged with another periodical, *De Pluimgraaf*, then issued, until 1918, by the *Algemeene Uitgevers-Maatschappij* at Amsterdam.

ONZE VOGELS. 1883–7? *Soest.*

OOLOGIST.
1875–81. Vols. 1–5. *8vo.* (All pub.) Edited and published by S. L. Willard & Co. *Utica, N.Y.*
This rare journal is generally known among bibliographers as the 'Utica Oologist', to distinguish it from others of the same name. It was well illustrated both by black and colored drawings and did credit to the science and art it represented. Among its many contributors appear the names of C. A. Morse, W. T. Allen, A. W. Butler, E. Ingersoll, J. P. Norris, C. J. Maynard, and J. H. Severance.

OOLOGIST, THE. Devoted to the Study of Birds, their Nests and Eggs. Edited by F. C. Green, W. S. Burnham and L. H. Cannon.
1878. Vol. I, No. 1. *8vo.* Continued as the Western Oologist. *Milwaukee, Wis.*

OOLOGIST, THE. On the Nesting Habits and Eggs of North American Birds.
1884–?1930. Vols. 1–47. *illust. covers. indexes and supplements. Albion, New York.*
T. J. Fitzpatrick, Bethany, Neb., writes: '*The Oologist* began as *The Young Oologist*. Vol. I, 12 (monthly) numbers. May 1884–April 1885, published at Gaines, N.Y. Vol. II, nos. 1 and 2, May to June 1885 were then issued at Albion, N.Y. Vol. III was subsequently published as a bimonthly, entitled *The Oologist*. Ernest H. Short was Editor and Manager, Chili, N.Y., in 1905. R. Magoon Barnes, Lacon, Ill., is the present (1922) Editor.'

OOLOGIST'S ADVERTISER, THE. A monthly paper devoted to the study of Birds, their Nests and Eggs. Chas. H. Prince, Editor and Publisher.
1890. *8vo.* (All pub.) *Danielsonville, Conn.*

OOLOGISTS' EXCHANGE, THE. A Monthly for Ornithologists and Oologists.
1888–90. Monthly. *8vo. illust.* T. Vernon Wilson. *Austin, Ill.*

F. L. Burns furnishes these notes: Vol. I, 1888, Nos. 1–12, Jan.–Dec. *pp. 52.* Nos. 8–10 issued by Dickinson and Durkee, Sharon, Wis. Vol. II, Nos. 1–11, Apr. 1889–Feb. 1890. *pp. 44. illust.*, issued by Arthur E. Pettit, New York. Suspended. Notes on ornithology contributed by F. C. Baker, W. E. Hillman, Le Grand J. Meyer, T. G. Pearson, E. B. Webster, and others.

OOLOGIST'S EXCHANGE AND MART. Monthly. Kenneth L. Skinner, Editor, Brooklands Estate Office, Weybridge, England. **1919–21.**

This periodical was first issued as a private, confidential, commercial enterprise and limited to a selected list of Oologists. In 1921 the scientific portion of the magazine was enlarged and the commercial excerpts and circulars published separately. With this new departure the periodical has undergone a change of name to *The Oologists' Record* (q.v.), the *Exchange and Mart* being published as a Supplement.

OOLOGIST'S JOURNAL, THE. A Monthly Magazine devoted to Ornithology and Oology. Ed. and pub. by Fred. W. Stack.
1891–2. (Suspended.) *2 vols. 8vo.* *Poughkeepsie, N.Y.*

F. L. Burns reports: Vol. I, 1891, Nos. 1–3, Jan.—March. *pp. 12.* Vol. II, 1892, Nos. 1–3, Jan.–April. *pp. 12* (all issued). 1 and 2 (Jan.–March) were double nos.; J. W. Peck, Associate Editor. Pub. by Stack and Peck. With the final number this short-lived journal was merged with the *Sentinel Magazine.* It contains notes by I. U. Kinsey, J. W. P. Smithwick, and others.

OOLOGIST'S NOTES, THE. Ed. by Herbert A. Carhart.
Vol. I, Nos. 1 and 2, April and May, 1886. *8vo. illust.* (All issued.) *Collamer, N.Y.*

OOLOGIST'S RECORD, THE. A Quarterly Magazine devoted to the advancement of Oology in all parts of the world. *8vo. pp. 24 each number.* Edited by Kenneth L. Skinner. **1921–30.**

This periodical contains scientific papers of interest and value. Among the contributors, apart from the Editor, are Capt. C. R. S. Pitman, Capt. W. M. Congreve, and H. Kirke Swann.
See also THE OOLOGIST'S EXCHANGE AND MART, the forerunner of the periodical.

OORDT, G. J. VAN and **VERWEY,** JAN.
1925. Voorkomen en trek der in Nederland in het wild waargenomen vogelsoorten. *8vo. pp. x+96.* *Leiden.*

Synopsis of the avifauna of Holland, with notes on occurrence and migration, 349 species and subspecies being listed.

OORT, EDUARD DANIEL VAN [1876–].
1906–1930. *See* WICHMANN, C. E. A.

1918–22. Ornithologia neerlandica. De vogels van Nederland. *3 vols. folio. 260 col. pl.* Vol. I, 1918, *pp. xiii+250. 87 col. pl. 2 text-figs.* Vol. II, 1919–20, *pp. 96. pl. 88–189.* Vol. III, 1922, *no text. pl. 190–260.* *'s Gravenhage.*

To be completed in five volumes, 27 parts having been published to 1922. The colored plates are unusually fine, and the work is a most creditable treatise on the avifauna of Holland.

OPORTO. *See* ANNAES DE SCIENCIAS NATURAES.

OPPIANUS.
1508. Alieuticon seu de Piscibus libri. *4to. 74 ll.* *Impressum Venetiis.*

The extremely rare second edition of this famous poem on fishes, the first edition having been published at Florence in 1478. The present volume is possibly unique; at least it is not mentioned by Brunet nor is it listed in any of the usual catalogues.

1515. Ὀππιανου Ἁλιευτικων Βιβλια πεντε. Oppiani de natura seu venatione Piscium libri quinque. *8vo. pp. 140.* *Florentiae.*

The *Cat. Br. Mus.* (*Nat. History*) lists this title as the *editio princeps*, but there is a still earlier quarto edition, also published in Florence.

1534. Oppiani poetae Alieuticon, sive de piscibus libri quinq; e graeco traducti . . . sequuntur disticha ultra centum de rebus variis . . . authore L. Lippio . . . interprete libororum quinq; Oppiani C. Plinii Secundi naturalis historae libri duo . . . de . . . piscibus. P. item Jovii de piscibus liber unus . . . Hos . . . authores J. Caesarius . . . recognovit, castigavit simulq; et scholiis passim explanavit. *8vo. pp. 6+152 ff.* *Argentorati.*

A rather rare edition of the poet Oppian on Fishes and other subjects.

1722. Oppian's Halieuticks of the Nature of Fishes and fishing of the ancients in V books. Translated from the Greek. *4to. pp. 8+13+232.* *Oxford.*

The labor of translating this Greco-Roman author was divided between Mr. Diaper (Pt. 1, Books I and II) and John Jones (Pt. 2, Books III to V). The latter contributor also wrote an account of Oppian's life and writings and compiled a catalogue of his Fishes. Dean's *Bibliography of Fishes* says that 'of all the ancient writers on fish and fishing, Oppian is easily the most important'. The contests between rival factions in the sea are amusingly drawn in the lines relating to the Lobster, the Lamprey, and the Preke (octopus). The remarkable color-changes of the last named were well known to the ancients (Book II).

'With scornful smile the *Lamprey* seems to speak,
And thus insults the Colour-changing *Preke.*

1786. Poemata de venatione et piscatione cum interpretatione latina et Scholiis. (Greek and Latin.) *folio. pp. 42+243.* *Argentorati.*

1864. Della pesca e della caccia. Tradotto dal greco etc. da Antonmaria Salvini. Nova edizione . . . della notizie per G. A. Greenhill. *12mo. pp. 22+430. indexes.* *Milano.*

A very compact rendering into Italian of Oppian's well-known poems on fishing and hunting, with a supplementary list of the (Italian) vulgar names of the fishes, birds, and other 'game' referred to in the original.

ORBIGNY. *See* D'ORBIGNY.

ORD, GEORGE [1781–1866].
1813–14. American Ornithology . . . [Vols. VIII and IX, edited, with a memoir of the author, by G. Ord.] *See* WILSON, ALEXANDER.
1828–9. Another edition. With a sketch of the author's life by George Ord.

1831. Another edition [including Bonaparte's American ornithology].

1831. Another impression of the same date.

1832. Another edition.

1854. Another edition with a synopsis by T. M. Brewer.

1878. Another edition.

The foregoing titles, representing the author's contributions to Wilson's *American Ornithology*, are practically identical, so far as Ord's material is concerned. Each one, however, is of interest to the bibliographer and student because of the added notes, etc.

1894. North American Zoology. [A reprint of] with notes and appendix by S. N. Rhoads. *8vo. pp. 171.* *Haddonsfield, N.J.*

The extremely rare original appeared in Guthrie's *Geography*, 1809 (also 1815 and 1820), and the reprint (an exact reproduction of the early printing) represents the first treatise on the subject by an American. It includes descriptions of new avian species collected by the Lewis and Clark expedition. Rhoads in an appendix of 90 pages has added valuable notes.

OREGON NATURALIST. (**Northwestern Ornithological Association.**) **1894–8.** Vols. I–IV (all pub.).

O'REILLY, BERNARD.

1818. Greenland, the adjacent seas, and the north-west passage to the Pacific Ocean, illustrated in a voyage to Davis's Strait, during the summer of 1817. *4to. pp. 6+293. 2 maps.* *London.*

According to *The London Quarterly Review* (vol. 19, pp. 208–14) this is 'a bare-faced attempt at imposition—part nonsense, part falsehood'.

ORIENTAL SPORTING MAGAZINE. *Calcutta.*

1828–32.

1868?–79? New series.

(THE) ORIGINAL COLOUR PRINT MAGAZINE. [Ed. by] William Giles. *See* GILES, WILLIAM, 1924–6.

ORIGINAL DRAWINGS.

[*Note.*—As far as possible the following titles are arranged in alphabetical order of artists' names; when these are unknown the first important word of the title or description is placed in order. There are many original drawings used for the extra-illustration of library copies whose artists are not listed here. The McGill libraries are lacking in representative originals of American animal artists—a defect that it is the intention of the officials to remedy in the near future.]

Adamson, C. M. **1880.** A series of colored drawings made to illustrate his *Studies of Birds.*

Some of these were employed for the same purpose in the author's *Scraps about Birds.*

Albin, E. A Collection of 22 Original Water-colour Drawings (21¼×15 ins.) of Crocodiles, Tortoises, European and American Fishes; *loosely inserted in 1 vol., royal folio.* **18th cent.**

One drawing is signed by E. Albin and most of the others are also probably by him.

Album containing over 100 exquisite Water-Colour Drawings of Birds. *ca.* **1790.** *ob. 8vo.*

Each drawing is beautifully done, and the very smallest detail is shown. The drawings are the work of a French artist about the end of the eighteenth century.

Baker, E. C. Stuart. Eight aquarelles, drawn by the author for his well-known treatises on the *Birds of India,* **1890–3.**

Belcher, W. J. and others. **1917–30.** Paintings of the birds of Fiji by W. J. Belcher, E. Cheverlange, C. Bulling, and A. E. Ward. *127 paintings in portfolio.*

A series of 127 beautiful original water-color drawings of the birds of Fiji, executed for Dr. Casey Wood by the above artists, who had the advantage of seeing the birds in their native habitat, thus being able to study their poses, mode of perching, manner of flight, etc.; and portray them in their living plumage. In every instance the artists have made, for the background of the painting, a sketch of appropriate scenery, of the trees mostly affected by the bird, the fruit, insects, etc. he prefers as food and, occasionally, the nest and eggs. One of the drawings, that of *Pyrrhulopsis koroensis,* has been reproduced in the *Ibis* for October 1925, in which will be found, as well as, in the January number for 1926, a very interesting account of the birds of Fiji by Dr. Casey Wood and Dr. A. Wetmore. Most of the drawings were executed in 1923 and 1924 by Mr. Belcher during the visit of Dr. Casey Wood to the islands.

Bulling, C. *See* ORIGINAL DRAWINGS. Belcher, W. J.

Cheverlange, E. *See* ORIGINAL DRAWINGS. Belcher, W. J.

Collection d'oiseaux et d'animaux peints d'après Nature. **1720–40.** *1 vol. 4to.*

This remarkable collection is further described in the Chapter of the accompanying *Introduction* on *Unica.*

Collins, Charles and **others.** Collection of 12 original signed water-color drawings of Parrots. **1737–59.** *1 vol. folio.*

These drawings by C. Collins (among several hundred others in the collection by the same artist) were done to the order of Taylor White, F.R.S., of Wallingwells, Notts., who is referred to in contemporary papers as a patron of the arts. Of the artist Collins it is known that he painted many pictures of birds and other animals and in 1736 published, through T. Bowles, London, a portfolio of 112 animal portraits in color, of which 12 were of birds. In this same collection of 52 Parrot portraits were 5 signed by P. Paillou. The remaining 35 were in all probability by one or other of the two artists.

—— Drawings (21¼×15 ins.) of Bird of Paradise, Woodpeckers, Finches, Wrens, Sparrows, Rollers, Swallows, Martins, Starlings, Blackbirds, Wax-bills, Wagtails, Cuckoos, etc., etc. *loosely inserted in 6 vols. royal folio.* **1725–59.**

57 of the drawings are signed by C. Collins, 18 by P. Paillou, 1 by J. Edwards, and 1 by Van Huysum. The remaining 121 are most probably by one or the other of these artists. This remarkable (Taylor White) collection is fully described in this INTRODUCTION under rarities and *Unica.*

—— A Collection of 48 Original Water-colour Drawings (21¼×15 in.) of Monkeys, Apes, Sloths, etc. *loosely inserted in 1 vol. royal folio.*

The drawings are unsigned but are most probably by C. Collins. All the above drawings were done to the order of Taylor White, F.R.S., of Wallingwells, Notts. A leaf of description in Latin and English accompanies nearly every drawing.

—— A Collection of 97 Original Water-colour Drawings (21¼×15 in.) of Dottrels, Knots, Ruffs, Stints, Snipes, Curlews, Lapwings, Plovers, Avocets, Coots, Rails, Gulls, Flamingoes, Cranes, Herons, Kingfishers. *loosely inserted in 2 vols. royal folio.* **1736–55.**

Appended to the Latin description of *Phœopus Minor* is 'This Bird with many others were brought me from North America by my learned friend Hodgkinson Banks Esq.' 37 of the drawings are signed by C. Collins, 9 by P. Paillou, and 1 by E. Albin. The remaining 50 are most probably by one or the other of these artists.

—— A Collection of 100 Original Water-colour Drawings (21¼×15 in.) of Ducks, Swans, Geese, Pelicans, Albatross, Divers, etc. *loosely inserted in 2 vols. royal folio.* **1736–59.**

44 of the drawings are signed by C. Collins, and 9 by P. Paillou. The remaining 47 are most probably by one or the other of these artists.

—— A Collection of 67 Original Water-colour Drawings (21¼×15 in.) of Game-cocks, Pheasants, Dodo, Grouse, Partridges, Quails, Ostriches, Peacocks, Turkeys, etc. *loosely inserted in 2 vols. royal folio.* **1736–98.**

20 of the drawings are signed by C. Collins, and 19 by P. Paillou. The remaining 28 are most probably by one or the other of these artists. The drawing of the Dodo, which occupies the whole sheet, is extremely fine, and, so far as the Compiler is aware, no other plate or drawing of this size exists. A reproduction of it forms the frontispiece of this INTRODUCTION and CATALOGUE.

—— A Collection of 62 Original Water-colour Drawings (21¼×15 in.) of Mongoose, Bears, Ferrets, Polecat, Stoats, Badgers, Racoon, Rats, Beavers, Squirrels, Rabbits, Porcupines, etc. *loosely inserted in 2 vols. royal folio.* **1739–47.**

Six of the drawings are signed by C. Collins, and one by P. Paillou. The remainder are most probably by one or the other of these artists.

[**ORIGINAL DRAWINGS,** Collins, Charles (*contd.*)]

—— A Collection of 56 Original Water-colour Drawings (21¼×15 in.) of Pigeons. *loosely inserted in 1 vol. royal folio.* **1736–53.**

Six of the drawings are signed by C. Collins, and 39 by P. Paillou. The remaining 11 are most probably by one or the other of these artists.

—— A Collection of 101 Original Water-colour Drawings (21¼×15 in.) of Steinbock, Goats, Chamois, Roebuck, Sheep, Buffaloes, Cows, Elephant, Rhinoceros, Zebras, Swine, Camels, Stags, Deer, etc. *loosely inserted in 2 vols. royal folio.* **1769–70.**

Included in the description of the *Cow Deer* is the following: 'The Cow Deer. This Beast with the Female was brought from Bengall & presented to Ld. Clive by Govr. Cranwell in the year 1767 . . . the whole form of its body Divers too much from the Goats particularly its head and tail that it can not properly come in to that Class, so that I considered it as a new Genus undescribed by any Author which I have met with.'

—— A Collection of 90 Original Water-colour Drawings (21¼×15 in.) of Vultures, Hawks, Owls, Eagles, Kites, Falcons, Goshawk, Harriers, Kestrel. *loosely inserted in 2 vols. royal folio.* **1737–59.**

A very fine collection, the figures occupying the whole page. Appended to the Latin description of *Falco Lagopus* is 'This bird & the next which I take to differ in sex only were given me by Mr. Banks together with the Lagopus and many other birds which he brought from Canada and Labrador'. 17 of the drawings are signed by C. Collins, and 3 by P. Paillou. The remaining 70 are most probably by one or the other of these artists.

—— A Collection of 44 Original Water-colour Drawings (21¼×15 in.) of Wolves, Lions, Tigers, Wild Cats, Jackals, Foxes, Leopards, etc. *loosely inserted in 1 vol. royal folio.* **1742.**

Two of the drawings are signed by C. Collins. The remainder are most probably by the same artist.

Dias, R. [**1878–81**]. Indian birds; a collection of 122 original water-colour drawings of Indian birds and nests. *folio. 122 drawings.*

This collection consists of 110 colored drawings of birds, 11 of nests (2 of which are in black and white), and 1 of eggs. Many bear a printed reference to Jerdon's *Birds of India*, and range in size from 5¼×2½ to 14½×16¾ inches.

Duncan, John. **1903–5.** Water-color drawings of birds.

A series of 14 mounted water-color drawings of European birds of prey, ranging in size from 11×10 to 19×15 inches. In 1898 this artist published *Birds of the British Isles*, and executed the figures both colored and black and white for Charles Dixon's *Bird Life of London*, 1909.

Edwards, J. *See* ORIGINAL DRAWINGS. Collins, Charles and others. **1725–59.**

Eighteen original water-colour drawings of British birds. *folio.* [*Castle*, **1846–54.**] *in portfolio.*

The 18 well executed drawings are all signed 'S. L. G.' and dated 'Castle, [1846–54]', but the artist's name remains unknown. The birds depicted are the Alpine Accentor, Blue Titmouse, Buzzard, Chaffinch, Cole Titmouse, Fire Crested Wren, Golden Crested Wren, Grass Hopper Warbler, Hedge Sparrow, Hen Harrier, Lapland Bunting, Marsh Harrier, Marsh Titmouse, Ray's Wagtail, Red Breast, Redwing, Siskin, and Tree Sparrow.

Fisher, William Richard [? 1819–89]. **1847.** Water-colour drawings of 320 birds' eggs and nests. *3 vols. 8vo.*

Of 320 original drawing of birds, nests, and eggs, 318 are in water-colors, the remaining two of birds being uncolored. They were executed by the artist in 1847, and are interleaved with his own MS. descriptions and notes. These drawings are arranged after, and the notes refer to, the second edition of Yarrell's *History of British Birds*, 1845. The figures of the rarer eggs are chiefly from the specimens in Yarrell's cabinet, which are described by him in the body of the work; and many are from the collections of H. F. Walter and Dr. Henry Pitman. Attached to this unique and special copy is a letter from Mr. Porter the bookseller to Major W. H. Mullens the purchaser, regarding it, and the fact of there being nine instead of five autograph letters of Yarrell which go with this set. See annotation of Yarrell's works now in this library.

Forbes, James [1749–1819]. Zoological drawings and paintings by James Forbes. **1790–1813.** *folio. 54 drawings in portfolio.* 30 birds; 16 eggs; 12 snakes and other vertebrates.

These original water-colors were made in India to illustrate the author's well-known *Oriental Memoirs*, 1813.

Frohawk, F. W. **1929.** Original aquarelles.

Beautiful colored drawings of a pheasant and of a bee-eater. This widely known artist has furnished colored drawings for numerous treatises and magazines. He is especially noted for the meticulous care given to his subjects from the viewpoint of the systematic zoologist.

Gosse, Philip Henry. Original drawings to illustrate *The Birds of Jamaica.* **1845–9.**

This remarkable collection is described under the author-artist's *Birds of Jamaica*, 1849, in this *Catalogue.*

Gould, John. **1831–6.** Twenty-two water-color drawings, most of them used to illustrate his *Birds of Australia.* A few dated 1831; Whatman Paper water-marked 1835 and 1836 in most other instances.

Mr. E. C. Stuart Baker, through whose influence these remarkable and extremely rare originals were secured, informed the Compiler that the drawings were bought at the sale of the library of the Hon. C. R. Weld who was related to a former Governor of Tasmania and received the collection from him. The notations on most of the plates are in the handwriting of Mrs. Gould.
There are depicted 17 Australian and one African species in the main lot. The portrait of a toucan is varnished and framed.

Green, Ronald [1892–]. **1926.** Seven aquarelles of birds.

This well-known artist-illustrator was born in Rainham, Kent, England, in 1892, studied at the Mathematical School, Rochester, and the Regent Street Polytechnic, London. He has made plain and colored drawings for Pycraft's *Flight of Birds* and other publications, and has exhibited publicly many of his water-color paintings.

Grönvold, Henrik [1858–].

Both the Blacker and E.S.W. Libraries possess many pictures by this artist-illustrator, including 25 colored drawings for Stuart Baker's *Indian Pigeons and Doves* as well as colored lithographs for other treatises on zoology. He was born in Praestö, Denmark, and came to London in 1892. Among his numerous drawings are the illustrations for Shelley's *Birds of Africa*, Sclater's *Fauna of South Africa*, and Howard's *British Warblers*. He also drew the portrait of John IIIrd, a famous parrot, which now hangs in the McGill Library. The E.S.W. collection also possesses the first drawing of Grönvold's, made in Denmark, of the Pallas Sand Grouse.

Gundlach, Johannes [1810–96]. Drawing Book of sketches and pictures.

From the Knowlton collection through Dr. Chas. W. Richmond.

Gwillim, Elizabeth, *Lady* [? 1763–1807]. [Paintings of Indian Birds.] [**1801–7.**]

A series of 121 beautiful original water-color drawings of Indian birds, faithfully depicted as to plumage and posture, and with backgrounds painted in a fashion worthy of Keulemans or Grönvold. Some are mounted and all are numbered in the handwriting of the artist, many also bearing descriptive notes, measurements, color-indications, and other data. These drawings were obtained by Dr. Casey Wood—quite by accident—during one of his expeditions after rare books round the London booksellers. Not much is known of the artist except that she was born (about) April 21, 1763, and came to Madras in the year 1800 with her husband, Sir Henry Gwillim of Hereford, one of His Majesty's Puisne Justices of the newly formed Supreme Court of Judicature. She died December 21, 1807, at the early age of 44, and was buried in St. Mary's Church, Fort St. George, Madras. For a more detailed account of these drawings see the paper by Dr. Casey Wood entitled 'Lady [Elizabeth] Gwillim—Artist and Ornithologist', in the *Ibis* for July 1925, pp. 594–9. *See also* this *Introduction.*
Attached to the inside of the large portfolio or case containing these drawings, are two letters referring to the career of the artist, also, a copy of the above paper from the *Ibis.*

Hayes, Charles (*fl.* 1808–16]. [**1812–14**]. Fifty original drawings of birds. *folio.*

Little is known of this zoological artist except that he was the son of the famous William Hayes, whose *Portraits of Rare and Curious Birds drawn from the Menagerie at Osterley Park* is in every large library on Natural History.
Charles is the author and illustrator of a very rare and probably uncompleted 4to, entitled *The Portraits of British Birds, including Domestic Poultry and Water-Fowl.*

Hayes, William [1729–99] and other members of the same family. Forty-nine water-color drawings of birds. **1779–89.**

49 original water-color drawings and engravings of the rarer English and a few Eastern birds. These drawings range in size from 8½×11½ to 21×15 inches, being variously dated from 1779 to 1789, the whole in portfolio, which bears the bookplate of Lord Willoughby de Broke.
Wm. Hayes was in 1794 living at Southall, Middlesex, England, when he published his *Portraits of Rare and Curious Birds.* This work, as well as two previous volumes, was the product of himself and family—seven of his 21 children having been his students and assistants.
The collection of original drawings was purchased from Wheldon and Wesley, London, who obtained it from Quaritch in whose shop it had lain for more than 12 years.
It now forms part of the Emma Shearer Wood Library. Undoubtedly some of the paintings were used to illustrate one or more of the volumes just referred to.

Head, Arthur W. [1859–1930]. Sixty drawings in color of the back-grounds of birds' eyes to illustrate Casey A. Wood's *Fundus Oculi of Birds,* 1917. Deposited in the Library of the Medical Faculty, McGill University.

Henry, G. M. Original water-color drawings of the birds of Ceylon, to illustrate *Coloured Plates of the Birds of Ceylon.* **1924–7.** *See also* HENRY, G. M.

Howitt, Samuel [1765–1822]. Twenty-six original drawings of quadrupeds, birds, etc. *ca.* **1821.** *folio. London.*

Some of these are unfinished. Among the best are the Bison, Lemming, Reindeer, Capybara, and *Canis aureus* (called the Cape Fox).

—— About 400 drawings in color of British birds' eggs; also manuscript descriptive text with systematic and vernacular names. *folio.*

Presentation copy to 'Hannah Howitt from her affectionate Husband, Feb. 28th, 1844'. Well-executed pictures in full size, the whole evidently intended for publication, a project never carried out.

Indian birds: Original paintings of Indian birds by an unknown Anglo-Indian artist. *ca.* **1900.** *folio, in portfolio.*

It is to be regretted that the name of the artist of these 39 original paintings is unknown, as they display an amount of fine and delicate workmanship. They were probably executed before 1900 in India and sold in London, where they were purchased and presented to the E.S.W. Library of Ornithology. Six of the drawings bear the name of the depicted species in faded manuscript.

Keulemans, John Gerrard [1842–1912]. Thirty-five original sketches and colored drawings, to illustrate Sir Walter Buller's *Birds of New Zealand. ca.* **1872.**

Several of these bear comments by both artist and illustrator. Some of the pictures are signed by Keulemans; a few are dated.
John G. Keulemans was born of Dutch parents in Rotterdam, June 8, 1842. Although he published but one book, a *Natural History of Cage Birds*—and even that was unfinished—from 1870 to 1900 there was hardly a work of any importance on ornithology with colored illustrations in English, French, German, or Italian—but particularly in the first-named language—to which his pencil and brain did not contribute. *Ibis* and the *Proceedings of the Zoological Society* contain hundreds of his pictured birds and mammals. He was easily the best and most popular animal painter of his day.
The present collection is interesting mainly because it shows his methods, as ordinarily carried on. He made sketches of his subject with such comments as he thought desirable for his guidance in painting the finished picture or, most frequently, that he might reproduce it by lithography for subsequent coloring by hand. Both these methods are well demonstrated in the McGill libraries.

—— *ca.* **1876.** Original colored paintings on glass. 9 examples of British Birds. *London.*

This selection of nine common English birds was made for Dr. Bowdler Sharpe and painted on glass as a window decoration of his private residence by his friend the celebrated animal artist Keulemans. They passed to Mr. Wells of the British Museum and from him to the Blacker Library.

—— **1890.** Original water-colour drawings to illustrate J. St. G. Mivart's Dogs, jackals, wolves and foxes; a monograph of the canidae.

These 46 water-color drawings are not, as was generally the case with Keulemans' plates, lithographed outlines afterwards colored by hand, but are genuine brush and pencil portraits, admirably finished.

—— **n.d.** Original sketches and colored drawings of birds, with occasional comments. *folio. no t.-p. 135 drawings in portfolio.*

A rare collection of original colored drawings, mostly of birds, by this famous artist. For many years Keulemanns was the best-known European illustrator of works on Natural History. He usually drew outline sketches directly on stone, from which he made hand-colored 'patterns' to be used for subsequent illustration. Some of these patterns are in the present collection, but with few exceptions the pictures are original drawings, entirely by the hand of the artist.

King, Wm. [?1728–90].

Bound with a volume of colored drawings by J. W. and R. Lewin are three drawings of birds' eggs by this artist, probably used by the elder Lewin to illustrate his *British Birds.*

Lear, Edward. **1820–36.** Volume of Original water-color drawings, consisting of 43 sketches, studies and full page water-color paintings, with marginal criticisms.

These valuable studies were made by one of the best lithographers and colorists of his day, the artist being the author of Lear's *Illustrations of the Family of Psittacidae,* 1830–2. Some of the originals of the portraits of Parrots in that work are in the present volume, as are a number of drawings for illustrating the well-known Knowsley Hall atlas. Zimmer (*Ayer Catalogue, Field Museum,* 1927) says that Lear's work 'is noted for its artistic value combined with accuracy of portrayal'.

—— The Blacker Library has a small collection (six) of Eagles, Herons, Cranes, etc., drawn in colors and of life-size, about **1832–5.**

These aquarelles were purchased direct from a member of the Lear family, one of the pictures being signed and dated. They are fine, well-preserved examples of the artist's work.

Lewin, J. W. [(?) 1770–1835]. 30 portraits of birds, many made in Australia. This illustrator was a son of Wm. Lewin, the author and artist of the well-known treatise on *British Birds.*

Lewin, R. 7 portraits of birds by a member of the celebrated Lewin family of artists and ornithologists.

Lewin, Thomas W. [*fl.* 1810] and others. **1825–39.** Original water-colour drawings of birds.

A collection of 44 water-color drawings of British and foreign birds—representing 36 different species—three of which are signed, and the remainder attributed to this artist, who was a brother of John William Lewin, the author and artist of the *Birds of New South Wales* and other treatises on Natural History. Other members of the Lewin family, all of whom are represented in original collections of this library, also painted zoological subjects. The British Museum has 75 water-color drawings of birds by this artist.

Lewin, William [1730–95]. Drawings of 146 British birds' eggs in the (former) Portland Museum, made about 1785.

In the opinion of Swainson this artist-illustrator, member of the famous Lewin family of naturalists, was 'the best zoological painter, and one of the most practical naturalists of his day'. He was patronized by and painted portraits of birds and their eggs for the most eminent men and women of his generation. It is claimed for him that most of his subjects were drawn on vellum, 'generally in body colours, and that his style was bold, his colouring powerful, without being highly finished'. Newton, however, did not place a high value upon his *British Birds.*

[**ORIGINAL DRAWINGS** (*contd.*)]

Malchien, A. Abbildungen zur Naturgeschichte der Vögel. **1861.** *4to. MS. title. New York.*

In the E.S.W. Library are 453 well-executed, original drawings, on 173 sheets, of Birds of Prey, Song-birds, Parrots, Toucans, etc., with the above title-page in manuscript.
The following is an exact copy of this script title: 'II. Abbildungen zur Naturgeschichte der Vögel von A. Malchien II. Abtheilung (complete, all executed) Raubvögel, Singvögel, Klettervögel. 453 Abbildungen aus 173 Tafeln. New-York 1861.' The present volume is from the library of the late George N. Lawrence.

Meÿer, H. L. A magnificent collection of six hundred colored drawings, the originals of the author's *Illustrations of British Birds*, 1835–50. See the description under that title in this **Catalogue.** They form one of the chief treasures of the McGill libraries.

Miller, Amy. A collection of signed water-colors intended to illustrate Latham's *General Synopsis of Birds.* They are accurately depicted, but the dates of the drawings and a history of the artist are unknown to the Compiler.

Miscellania curiosa de avibus. MSS. with original drawings of . . . birds. **1720?**

A curious, anonymous collection probably intended for publication.

Neale, E. The Golden Eagle. Painting (unfinished) in Oils. Size of canvas, *3 ft. × 2 ft. 4 in.* [? ♀].

This picture, upon which the artist was engaged at the time of his death, came, with other effects, into the hands of R. H. Porter, who published Booth's *Rough Notes* and Dresser's *Birds of Europe.* The former work was entirely illustrated by Neale and the latter partly. The picture of the Golden Eagle, which was acquired by W. J. H. Craddock in 1915 from E. H. Porter, son of R. H. Porter, was presented by him to the E.S.W. Library in 1927.

Paillou, P. *See* ORIGINAL DRAWINGS. Collins, Charles.

In addition to the work done for the Taylor White collection in conjunction with Charles Collins, Paillou must have made many independent portraits of animals. The Blacker Library has a volume of these drawings, dated 1720.

Plath, Karl. This artist-ornithologist was born in Chicago, August 29, 1886. He studied at the Chicago Art Institute and under Frederic Grant; is a Member of the Illinois Academy of Fine Arts and of Art Institute Alumni. He has painted ornithological subjects as a speciality for several years.

In addition to numerous sketches, studies, drawings, and paintings made during his work in zoological gardens while pursuing his favorite vocation, Plath traveled in the West Indies, Bermuda, and Florida that he might portray his ornithological subjects amid their natural surroundings. His illustrations of indigenous and exotic bird-life have appeared in *Ibis*, *Bird-Lore*, the *Wilson Bulletin*, *Avicultural Magazine*, and other periodicals. This artist is a member of several ornithological societies at home and abroad, and his pictures show unusual knowledge of avian plumage, habits, and postures. The bird portraits in the E.S.W. Library, one water-color (Impeyan Pheasant), and one oil painting (American Tropic Birds) are spirited and accurate drawings of these birds.

Powell, W. E. Original water-colour paintings of birds. **1910–25.** *folio. London.*

Six original water-color drawings of birds 11 × 9 inches, in mounts 20 × 15 inches. The species represented are, Golden Eagle, Toucan, Montague's Harrier, Kestrel, Flamingo, and Blue Heron. Several of this artist's animal pictures have been reproduced in the *Illustrated Sporting and Dramatic News*, the landscape backgrounds being especially attractive.

Rabié (*Major-General*). **1767–84.** Natural History of St. Domingo, Unpublished Water-Colour Drawings, with MS. descriptions (in French) and indexes, bound in *4 vols. royal 4to, and oblong folio.*

They are described as follows: Oiseaux, etc., 59 [drawings]; Poissons, Reptiles, Crustacés, etc., 75 drawings; Insectes, Arachnidés, Coquillages, etc. In addition are 127 sheets of drawings containing several hundred figures, including 100 figures of rare lepidoptera; also of Fruits, etc., 62 drawings.
These pictures form a collection of the highest importance. Rabié is described as 'Maréchal de camp, ingénieur-en-chef de la partie du nord de St. Domingue, mort à Paris en 1785'. The drawings, which are of first-rate quality, were made from nature by Rabié during his period of service in St. Domingo. They are variously dated 1767–84. A full (illustrated) review of this important Americana has been published by Dr. Alex. Wetmore in the current (1930) volume of the *Auk.*

Shore, F. J. **1827–8.** Unpublished MS. appendix to Latham's *General Synopsis of Birds*, with original paintings by F. J. Shore. *small folio. unp. 3 vols. in 2.*

This collection of manuscript and illustrations includes 196 sheets of original colored drawings of Indian birds and two sheets of colored squares, 'names according to Ackerman', for reference, depicting and describing 276 species. All the drawings were made under direction of the author-illustrator, critical remarks regarding the quality and correctness of the portraits being inscribed on the margins of each picture.
This unique appendix is thus illustrated with nearly 200 full-page drawings, and the majority of the species are described (but not portrayed) in Latham's works. In many instances the name of the native artist is supplied. Each species is accompanied by elaborate descriptive MS. notes by Shore, with references to Latham's treatise. The first ten leaves are paged to provide an Index to vol. I.
To give a better idea of the character of this remarkable supplement, the following quotations are given from Shore's three volumes: vol. I. 'Commenced May 10, 1827. Observations. In the description of the following pictures, of the figures of length, the first means from the point of the beak to the setting of the tail, placing the beak in its natural sitting position, and measuring by the curvature of head, neck, back, etc. The second, from the last point to the end of the longest feather, unless other measurements are expressly specified. The breadth measures from wing to wing, from the longest feather to do., whether the outer one or not; unless expressly specified to the contrary. The native names given, allude to the place where the bird was killed, unless otherwise specified, for the names for the same bird differ very much in different parts of India. In the Hills (the Himalayas) in particular, the inhabitants of villages five miles apart have often different names for the same bird, as indeed is the case with plants, insects, and even animals.
'The information about their nests, eggs, time of breeding, migration, and other local points, is chiefly collected from the village boys; who (in the hills particularly) from being continually bird nesting, and playing about the jungles, are well acquainted with these matters, while the men, on the contrary, comparatively know nothing, and when questioned usually say, "When I was, a boy I could have told you all about it but have forgotten now" For brevity's sake, when the toes are directly joined to each other, they will be said to be "joined"; if joined by a membrane, to be "membraned".
'The native names are given with great exactness: spelling according to Gilchrist's plan. This generally is not sufficiently attended to; which creates confusion. Most native names of birds have some meaning characteristic of their color, shape, song, manners, etc.
'The under parts, and those which cannot appear in the drawing, are minutely described. Where I have not exactly hit the color, it is mentioned. From want of this having been done in the drawings from which Latham's descriptions are taken, he has described the color of some incorrectly.
'The "Length of Bill", or for short "Bill" signifies from the point to the corner of the mouth when open.
'Almost every picture is taken from a real specimen, immediately after it has been shot; chiefly shot by myself, which gives me an opportunity of observing their natural position and motions. Some few are taken from live birds in cages, but where this is the case it is mentioned: also if it be taken from another picture or a stuffed specimen.
'In some the tongue is mentioned to have the "hooked joint" that is when the tongue has a joint near the root with a sort of barb pointing backwards like this: [drawing].
'When a bird is stated to be drawn ½–¾, etc. the natural size, it is by scale, with proportional compasses.
'N.B. I find that if the bird be placed in this position [drawing], holding it by the bill, and allowing the body to hang down; the measurement is the same, if the string be taken from the bill over the crown of the head, straight down, without pressing it into the curvature of the neck. This saves trouble. Or if the bird be drawn out straight like this [drawing] pulling the neck very slightly, the measurement is the same.
'To find the sitting on of the tail, it is cocked up like this [drawing] and the inner corner of the angle it makes with the body, is the point of measurement. This sometimes gives a greater difference than the appearance of the bird would indicate; as some have the feathers of the rump, vent, and tail-coverts, very long in proportion to their size; which makes the body appear longer, and the tail shorter than it is, e.g. Pl. 53, Fig. 2, Pl. 48 and others.
'The Perpendicular height means when the bird is standing as he is drawn.
'It is strange that not a single native has any idea of the migration of birds; they know that at certain seasons certain birds disappear,

and reappear at others; but they suppose that they hide themselves in the jungles.'
Vol. II, 'Jany. 1st, 1827'.
'Appendix to Latham's Birds, vol. III. Jany. 19th, 1828.
'Observations . . . (a repetition of those quoted above with the following added:)
'In some the eye is said to have a "film from forwards" (or backwards, upwards, downwards) that is when it has a film under the eyelid, with which it can cover the eye; and which projects from the front or back, or upper, or lower side of the eye. (Some of the birds being only wounded, enables me to ascertain this.)
'The toes are sometimes said to have 1, 2, 3, 4 joints, or 1, 2, 3, 2, etc., etc. The first number relates to the back toe; the second to the inner; the third to the middle; the fourth to the outer toe.
'N.B. Should the bird have two toes before and two behind, the numbers will refer respectively to the inner back, inner front, outer front, and outer back toe. Should all four toes be forwards, the numbers will commence at the innermost.'

Southern Cross Antarctic Expedition. Original drawings, with proofs, by Henrik Grönvold and E. A. Wilson to illustrate the Report on the collections of natural history made in the Antarctic regions during the voyage of the 'Southern Cross'. **1899–1901.** *8vo. 13 water-color drawings, 10 proofs.*

Seven of these drawings, 10×6½ inches, are by Grönvold, six by Edw. A. Wilson, the remainder being proofs. Only those by Wilson are dated and represent seals, those by Grönvold seals, young penguins, and birds' eggs. They form part of the set of plates illustrating the *Report on the Collections*, 1902, of the Expedition.

S. L. G. *See* ORIGINAL DRAWINGS. Eighteen water-colour drawings, etc.

Surtees, Frederic R. Ten illustrations inserted in E. L. Layard's *The birds of South Africa*, **1857.** *See* LAYARD, E. L.

Walcott, John. Three small water-color drawings of birds represent the work of this artist. They were made to illustrate his *Synopsis of British Birds*, **1789.**

Van Huysum. *See* ORIGINAL DRAWINGS. Collins, Charles.

Ward, E. A. *See* ORIGINAL DRAWINGS. Belcher, W. J. and others. Birds of Fiji.

Weir, Harrison William [1824–1906]. Ninety original pen and pencil drawings of birds, etc. **1869–1901.**

A large scrap-book, about 2 feet×1 foot 6 inches, containing 28 sheets on which are mounted 90 original pen and pencil animal sketches, mostly of birds, bearing dates from 1869 to 1901. Attached to the inside of the front cover is a portrait of this well-known artist, from the Supplement to *The Book Lover*, Sept. 1902.

Wilson, Edward A. *See* ORIGINAL DRAWINGS. Southern Cross Antarctic Expedition.

Wolf, Joseph [1820–99]. Original charcoal drawings. *in 10 portfolios. elephant folio. ca.* **1870.**

A series of 95 original charcoal drawings from 79 of which were copied an equal number of lithographs to illustrate D. G. Elliot's *A Monograph of the Phasianidæ*, 1872. The remaining 16 drawings, although originally intended for the same work, were never published. This celebrated animal painter, whose name should properly be spelt Josep, was a German by birth, coming to London at the age of 28, where he at once found employment with Robert Gray in illustrating his *Genera of Birds*, and later with Gould on his *Birds of Great Britain*. Afterwards his work both for books and journals is too multifarious to detail. Among individual works may, however, be mentioned his own two series of *Zoological Sketches* (1861–7). He is by many authorities regarded as the most spirited animal painter of his day. The Blacker Library also possesses a few of Wolf's paintings not included in the above.

(THE) ORIOLE; official organ of the Somerset Hills bird club, Bernardsville, N.J.
1913–16. Published irregularly. Vols. 1–3; 4, no. 1 (all pub.).

The above are all the numbers seen by the Compiler. This periodical is an amateur journal of the better class. It is to be regretted that it was obliged to cease publication.

ORLEANS COUNTY SOCIETY OF NATURAL SCIENCES. *See* ARCHIVES OF SCIENCE AND TRANSACTIONS.

ORMEROD, ELEANOR ANNE [1828–1901].
1899. The house sparrow. *See* TEGETMEIER, W. B.

ORMOND, JAMES.
1925. How to know the Orkney birds, containing a list of all the birds recorded as residents, summer visitors, winter visitors, birds of passage, occasional visitors and rare visitors. *8vo. pp. 59. front. (21 figs.). 5 pl. (115 figs). index. Kirkwall.*

ORNIS ODER DAS NEUSTE UND WICHTIGSTE der Vogelkunde in Verbindung mit mehreren Naturforschern herausagegeben von C. L. Brehm Pfarrer zu Renthendorf.
1824–7. Heft. I–III (all issued). *12mo.* (August Schmid.) *Jena.*

1824. I. Heft. *pp. viii+157. T. of c.*

1826. II. Heft. *pp. viii+173. T. of c.* Hefte I and II. Added to title (after the word 'Vogelkunde') 'und Anziehendes aus der Thierkund'.

1827. III. Heft. *pp. vii+152. T. of c.*

This rare little periodical (the pioneer ornithological magazine) contains not only a useful review of contemporary ornithological literature (mostly contributed by the editor) but other matter (including a notice of bats and shrews!) from the pens of such naturalists as Schlegel, Voigt, Harnschuch, and Richter.

ORNIS. Blätter fuer Vogelkunde, -Pflege, -Zucht und -Schutz. Organ des Bayerischen Verbandes f. Vogelzucht und -Schutz.
1903–17. Vols. I–XV [and continuation? Issued by G. Hensolt. *Schwabach*, near Nürnberg. *4to.*

ORNIS. Internationale Zeitschrift für die gesammte Ornithologie Organ des permanenten internationalen ornithologischen Comités.

This periodical consists practically of the papers (in English, French, and German) contributed to (and accounts of the activities of) the International Ornithological Congresses held in various cities from 1885–1930. *See also* CONGRESS. INTERNATIONAL, OF ORNITHOLOGY.

ORNIS FENNICA. (Ornitologiska Föreningen i Finland.) *Helsingfors.*
1924–30. Papers in Finnish, German, or Swedish.

ORNITHOLOGIA NOVA. 1743–5. *See* ANONYMOUS.

ORNITHOLOGICAL MISCELLANY. Edited by George Dawson Rowley.
1875–8. (All pub.) *3 vols. 4to. pp. 321. London and Brighton.*

This valuable addition to ornithological literature was issued in 14 parts, is magnificently illustrated by colored plates, mostly by Keulemans, and contains studies not only of British birds but of avian life in Fiji, New Zealand, Mongolia, Northern Thibet, the Tangut country, etc. The contributors bear names well known to zoologists; among them (including the Editor) J. H. Gurney, A. B. Meyer, Prjevalsky, P. L. Sclater, Bowdler Sharpe, Lord Tweeddale, O. Finsch, Alfred Newton, and several others equally celebrated.

ORNITHOLOGICAL REVIEW. English title of the Russian Journal earlier and better known by its French name *Messager ornithologique.*

ORNITHOLOGICAL SYNONYMY; an anonymous manuscript. 1855. *See* ANONYMOUS.

ORNITHOLOGIE. 1893. *Paris.*

ORNITHOLOGIE ET AVICULTURE. [The German title of this Russian periodical is *Ornithologie und Vogelzucht.*] Published in Moscow by the (French translation) *Section Ornithologique de la Société Impériale Russe d'Acclimatation des Animaux et des Plantes.* Edited by A. Chomiakoff and D. Rossinsky.

1910–13. Années I–IV. (All pub.?) *large 8vo. illust. by black and white photos.* *Moscow.*

This well-edited magazine has most of its titles in Russian, French, and German, and contains many important scientific essays by Loudon, Rossinsky, Nesteroff, Dorogostajsky, Charlemagne, Pomeranzeff, Boutourline, Antiloff, and other Russian naturalists. It is clearly printed and well illustrated by photogravures. The papers deal largely with the bird life of the (old) Russian Empire.

ORNITHOLOGIE UND VOGELZUCHT. The German title of the Russian periodical whose French caption is *Ornithologie et Aviculture.*

ORNITHOLOGISCHE BEOBACHTER DER WOCHENSCHRIFT FÜR VOGELLIEBHABER UND VOGELSCHUTZ. Edited by Carl Daut, Bern, and Gustav von Burg, Olten. Pub. by Carl Daut.

1902–30. (Jahrgänge) Vols. 1–28. *4to. illust.* *Basel.*

The *Beobachter* and its French equivalent, *L'Ornithologiste*, well represent Swiss views of and efforts towards bird protection and culture. Interspersed with reports upon these topics are many carefully prepared annual reviews and reports furnished by local ornithologists of repute with the assistance of several societies they represent. This little magazine has, doubtless, many years of usefulness before it.

ORNITHOLOGISCHE BEOBACHTUNGSSTATIONEN IN DÄNEMARK. *See* DENMARK. **1883–1930.** Ornithologische Beobachtungsstationen.

ORNITHOLOGISCHE GESELLSCHAFT IN BAYERN.

1919–*date*. Anzeiger.

1897/8–*date*. Verhandlungen. Nos. 1–3 as Jahresbericht des Ornithologischen Vereins München.

See also BEITRAEGE ZUR ZOOGEOGRAPHIE DER PALÄARKTISCHEN REGION.

ORNITHOLOGISCHE MITTEILUNGEN. The German name of the Russian journal whose (better known) French title is *Messager Ornithologique.*

ORNITHOLOGISCHE MONATSBERICHTE MIT BEITRÄGEN VON [numerous collaborators] **UND UNTER MITWIRKUNG VON H. SCHALOW.** Monthly, *8vo.* Edited by Dr. Ant. Reichenow, Berlin, 1893.

1893–1930. Jahrgänge 1–38.

This periodical, despite its small size, ranks with the most useful and practical of the German reviews of ornithological literature. Moreover, descriptions of new species and other important though brief contributions have been made by a large number of well-known students of avian life; among them the two Berlepschs, Tschusi v. Schmidhofen, Ed. Hellmayr, E. Lönnberg, F. Liendner, S. van Schauburg, J. Thienemann, Prof. Ballowitz, and many others.

ORNITHOLOGISCHE MONATSSCHRIFT. *Halle, Leipzig.*

1876–*date*.

1876–90. As Monatsschrift. *See* DEUTSCHER VEREIN ZUM SCHUTZE DER VOGELWELT.

ORNITHOLOGISCHER JAHRESBERICHT AUS DEM GOUVERNEMENT LIVLAND. *Russland.*

The Compiler has been able to obtain only one volume: I. Jahresbericht (1885). (All pub.?)
With this, a 'Nachtrag' by E. von Middendorf.

ORNITHOLOGISCHER JAHRESBERICHT [JAHR] AUS HOLLAND (FRIESLAND UND ZUID). Edited by Herman Albarda, *8vo.* *Leeuwarden.*

1885. Jahresbericht. *pp. 43.*

The Compiler has seen only the first number of this independent periodical, which is divided into three parts describing the localities included in its activities and appearance of species.

ORNITHOLOGISCHE RUNDSCHAU. Herausgegeben von Wilhelm Schuster. Gensenheim bei Mainz, Germany. Six nos. yearly. *8vo.*

1905–7. Vols. I–III. (All issued?)

This periodical is a 'Beilage' of the *Zeitschr. f. Oologie und Ornithologie*, beginning with April 15, 1905, and is generally bound with it; but the earlier numbers also appear as independent publications. In the 1907 volume of the *Zeitschrift* the publisher notes that the 'Ornith. Rundschau' is no longer issued by him; yet *Naturae Novitates* lists III, IV, and V Jahrg., 1907–10.

ORNITHOLOGISCHER VEREIN MÜNCHEN. *See* ORNITHOLOGISCHE GESELLSCHAFT IN BAYERN.

ORNITHOLOGISCHER VEREIN ZU STETTIN. *See* ZEITSCHRIFT FÜR PRAKTISCHE GEFLÜGELZUCHT UND ORNITHOLOGIE.

ORNITHOLOGISCHER VEREIN IN WIEN.

1877–97. Mittheilungen.

1884–5. Beiblatt.

See also SCHWALBE (DIE).

ORNITHOLOGISCHES CENTRALBLATT. Organ für Wissenschaft und Verkehr. Nachrichtsblatt des gesamten Vereinswesens und Anzeiger für Sammler, Züchter und Händler. Beiblatt zum *Journal für Ornithologie.* Im auftrage der Algemeinen Deutschen Gesellschaft herausgegeben von Prof. Dr. J. Cabanis und Dr. Ant. Reichenow.

1876–82. (All pub.) Bimonthly. Vols. I–VII. *Leipzig and Berlin.*

During the seven years of its existence the *Centralblatt* published many papers of importance, numbering among its contributors such eminent ornithologists as Blasius, Schalow, Böhm, K. Möbius, Hartlaub, v. Pelzeln, Günther *et al.*

ORNITHOLOGISCHES JAHRBUCH. Organ für das paläarktische Faunengebiet. Edited by Victor Ritter Tschusi zu Schmidhofen. Hallein bei Salzburg, German Austria. *8vo.* Monthly. Col. pl. Each part has a table of contents and index; often col. illust. Double parts the rule after 1903.

1890–1918. Vols. 1–29 (all pub.).

The *Jahrbuch* does not altogether confine itself to contributions on the bird life of the palaearctic region although that territory is remarkably well covered by these volumes, that are a monument to the industry and well-rounded ornithological accomplishments of the Editor. To the pages of this periodical almost every ornithologist of distinction in Europe has contributed, and especially those resident in South Germany and Austria. The review of palaearctic literature is of especial value and assistance to the investigator.

ORNITHOLOGISCHE VEREIN, MUNICH. Jahresbericht 1–3 (1897–8). *See* ORNITHOLOGISCHE GESELLSCHAFT IN BAYERN. VERHANDLUNGEN.

ORNITHOLOGIST, THE. A Magazine of Ornithology and Oology. Edited by H. Kirke Swann and collaborators. Illust. Monthly. London. *8vo.* Vols. I–II. March 1896–March 1897. 13 numbers (all pub.).

The short-lived *Ornithologist* contains several articles of importance and value and was the first periodical devoted exclusively to British ornithology.

ORNITHOLOGIST, THE. A monthly paper of Natural History. Especially devoted to the study of birds, their nests and habits. Ed. by C. L. McCollum, *8vo.* *Twin Bluffs, Wis.*
1885. Nos. 1–7.
F. L. Burns (105) furnishes these notes:
1885. Vol. I, Nos. 1–7, May–Dec. *pp. 60.* Suspended.
Fox notes that No. 6 was not issued, so that there were in reality only six numbers published.

Several good papers were contributed to this short-lived monthly. W. L. Kells wrote a series of notes on Canadian Wild Birds, and there were also papers by C. H. Andres, Chas. H. Marsh, A. M. Shields, and others.

ORNITHOLOGIST AND BOTANIST. Monthly. Joseph E. Blain, editor and publisher, Binghampton, N.Y., and Des Moines, Ia.
1891–2. *8vo.* (All pub.)
Frank L. Burns furnishes the following notes:
1891. Vol. I, Nos. I–XII, Jan.–Dec. *pp. 96. index.*
1892. Vol. II, Nos. 1, 2, (3), and 6, Jan.–July. *pp. 32.* Suspended.

This magazine seems to have passed through several editorial and publishing hands until it was finally merged in the *California Traveler and Naturalist.* After the fourth number Willard N. Clute became editor. At the beginning of the second volume Letson Balliet and Wm. S. Sanford, Des Moines, Iowa, became editors and publishers; finally W. S. Sanford & Co. alone. Among contributors are the editors, B. S. Bowdish, W. N. Clute, Wm. L. Kells, J. B. Lewis, J. M. Swain, A. H. Norton *et al.*

ORNITHOLOGIST AND OOLOGIST; birds, their nests and eggs.
Vols. 6–18, Mar. 1881–Oct. 1893. (All pub.) Rockville, Conn.; Bost., Mass.; Pawtucket, Conn.; Hyde Park, Mass., 1881–93. *8vo.* Continuation of *Oologist,* Utica, N.Y., 1875–81.

This magazine was very popular and in its day enjoyed a wide circulation and extensive patronage. Its list of contributors include the names of nearly every practical ornithologist in the country and it seems a pity that it was unable to continue its useful career.

L'ORNITHOLOGISTE. Organe officiel de la Société suisse pour l'étude des oiseaux et leur protection.

The foregoing is the French title of *Der ornith. Beobachter.* That magazine was separately edited (in French) by Prof. Mathey-Durpaz, Neuchâtel, Switzerland; beginning with Jahrg. (Année) VII, 1909–10.
See DER ORNITHOLOGISCHE BEOBACHTER.

ORNITHOLOGISTS' AND OOLOGISTS' SEMI-ANNUAL. *8vo.* Published by W. H. Foote, Pittsfield, Mass. Editor (second volume), C. C. Maxfield, Willard, N.Y. In two editions.
F. L. Burns (108) furnishes these notes:
1889. Vol. I, Nos. 1 and 2, Jan. and July. *pp. 48 +46. illust. 1 pl.*
1890. Vol. II, Nos. 1 and 2, Jan. and July. *pp. 48 +44. illust. 2 pl.*
This periodical was continued as *The Semi-Annual.*
The succession of these seven related periodicals is as follows:
(1) *Ornithologists' and Oologists' Semi-Annual,* 1888–9; continued as (2) *The Semi-Annual,* 1889, 1890.
Continued as (3) *The Wilson Quarterly.* A Journal of Ornithology, official organ of the Wilson Ornithological Chapter of the Agassiz Association. One vol. (IV), Nos. 1 and 2, April and July, published 1892. *8vo.* Oberlin, Ohio. Pub. by R. M. Strong and ed. by Lynds Jones *et al.*
Continued as (4) *The Journal of the Wilson Ornithological Chapter of the Agassiz Association,* 2 vols., 1893.
Continued as (5) *The Wilson Ornithological Chapter,* 1894.
Continued as (6) Bulletin Number [4–19] of the *Wilson Ornithological Chapter of the Agassiz Association,* 1895–8.
Continued as (7) *The Wilson Bulletin,* 1898–*date.*

ORNITHOTROPHIE ARTIFICIELE, etc.
1780. Anonymous. *Paris.*

ØRSTED, ANDERS SANDØE [1816–72].
1844. De regionibus marinis. Elementa topographiae historiconaturalis freti Öresund. *8vo. pp. [10]+88.* (Copenhagen. Universitas Havniensis [theses].) *Havniae.*
n.d. Udtog af en Beskrivelse af Grønlands Annulata dorsibranchiata. *8vo. pp. 33.*

ORTENBURGER, A. I.
1928. The Whip Snakes and Racers: Genera Masticophis and Coluber. (*Mem. Univ. Michigan Mus.,* vol. 1.) *4to. pp. 18+247. 36 pl.* *Ann Arbor.*

ORTON, JAMES [1830–77].
1870. The Andes and the Amazon, or across the Continent of South America. *8vo. pp. 25+356. 36 figs. 1 map (fold.). 3 append. index. New York.*

The result of a scientific expedition to the equatorial Andes and the river Amazon in 1867. There are numerous references to animals throughout the book, more especially to the Condor, Parrots, Toucans, and Humming-birds, etc., with two illustrations. A third edition was published in 1876.

1876. The Andes and the Amazon. 3rd ed. *8vo. pp. 23+645. 14 pl. 64 figs. 2 maps (fold.). 4 append. index.* *New York.*

A much enlarged edition, divided into two parts, the first containing the results of expedition No. 1, in 1867, and the second that of expedition No. 2, in 1873. There are further references to animals, especially to birds.

ORTUS SANITATIS. *See* HORTUS SANITATIS.

OSBALDISTON, W. A.
1792. The British Sportsman. Dictionary, etc. *4to. col. pl.* *London.*

A cyclopedia of game animals with (rare) colored illustrations.

OSBORN, HENRY FAIRFIELD [1857–].
1881. A memoir upon *Loxolophodon* and *Uintatherium,* two genera of the sub-order *Dinocerata. 4to. pp. 5+54. 4 pl. map.* *Princeton, N.J.*

Author's reprint.

1894. From the Greeks to Darwin. *12mo.* *New York.*

1907. Origin of life. *8vo. illust.* *New York.*

1910. Age of Mammals in Europe, Asia and North America. *New York.*

One of the best of our treatises on vertebrate paleontology.

[**OSBORN,** H. F. (*contd.*)]

1910. A naturalist in the Bahamas. *See* NORTHROP, JOHN.

[**1921**]. Evolution, phylogeny, and classification of the Mastodontoidea. *4to. pp. 6.* (Paleontological Society, Proceedings.) *New York.*

Author's reprint.

1926. On the trail of ancient man. *See* ANDREWS, R. C.

OSBORN, HERBERT [1856–].

1926. Economic zoology; an introductory textbook on zoology. *8vo. pp. 16+490. New York.*

One of the best manuals in English.

OSCULATI, GAETANO [1808–?79].

1850. Esplorazione delle regioni equatoriali . . . d'Amazzoni. *Milano.*

An account of the vertebrate zoology of this district is furnished by the author.

OSGOOD, I. and **WYNDHAM,** H.

1914. The Winged Anthology, etc. *8vo. London.*

OSGOOD, WILFRED HUDSON [1875–].

1901. Natural history of the Queen Charlotte Islands, British Columbia. Natural history of the Cook Inlet region, Alaska. *8vo. pp. 87. front. (map). 6 pl. 1 fig. bibliogr. index. Washington.*

OSLER, SIR WILLIAM [1849–1919].

1923. Incunabula Medica. A study of the earliest printed Medical Books, 1467–1480. *4to. Oxford.*

Many of these contain descriptions of animals, quite a few of the authors being famous naturalists.

1929. Bibliotheca Osleriana. A catalogue of books illustrating the history of Medicine and Science—bequeathed to McGill University. *4to. pp. 36+785. index. Oxford.*

Extensive use has been made of this fine treatise by the Compiler. For an account of the Osler Library see pp. xiv and xv of this INTRODUCTION and CATALOGUE.

OSLO UNIVERSITET.

1847?–*date.* Aarsberetning.

OSPREY, THE. An illustrated Monthly Magazine of (later *Popular*) **Ornithology.** Edited by Walter Adams Johnson, associated with Dr. A. C. Murchison and Dr. Elliott Coues. Illust.

1896–1902. Vols. I–VI. *8vo.* (All pub.) (Mostly) 12 nos. per vol. There was a vol. VI, No. 7, July 1902, actually printed, but it was not mailed to subscribers. *Galesburg, Ill.*

Frank L. Burns gives the following account and appreciation of this magazine with which the Compiler agrees. 'Dr. Gill, who had withdrawn from the April and May nos., again assumed the editorship in June, upon the retirement of Dr. Coues. Beginning with Vol. V, No. 2, the chief editors were Dr. Gill and Paul Bartsch in collaboration with Robert Ridgway, Leonard Stejneger, F. A. Lucas, Chas. W. Richmond, Wm. Palmer, Harry C. Oberhalser of Washington, and Witmer Stone of Philadelphia.'

This was by far the most brilliant of all the minor [American] ornithological periodicals.

OSSENDOWSKI, FERDINAND.

[**1923**]. Beasts, men and gods. *8vo. pp. ix+325. front. (map). glossary. index. New York.*

A very popular account of personal adventure. There are many references to and descriptions of Mongolian and Chinese Natural History, especially of birds. The first edition was published in August 1922, the present one in June 1923, it being the twenty-first edition!

OSTRICH (THE). Medium of Records of Members of South African Ornithological Society. Edited by Austin Roberts.

1930. Vol. I, No. 1, March. *Natal.*

OSWALD, FELIX LEOPOLD [1845–1906].

1880. Summerland sketches, or Rambles in the backwoods of Mexico and Central America. *8vo. pp. 5+425. front. 75 figs. Philadelphia.*

Many references to the natural history of the region visited, especially to its bird life. Dr. Felix Oswald was a great nature lover and wrote many stirring chapters on the charms and benefits of outdoor life for the early volumes of the *Popular Science Monthly.*

OTTAWA FIELD NATURALISTS' CLUB. *See* CANADIAN FIELD NATURALIST.

OTTAWA NATURAL HISTORY SOCIETY.

1866–8? Transactions.

OTTAWA NATURALIST. *See* CANADIAN FIELD NATURALIST.

OTTÉ, E. C.

1857. The rambles of a naturalist. *See* QUATREFAGES DE BRÉAU, JEAN LOUIS ARMAND DE.

OTTO, WILHELM A.

1914. Praktische Vogelkunde und Vogelpflege. *32mo. pp. (16)+191. 30 pl. (col.). 2 figs. Leipzig.*

OUDEMANS, ANTOINE CORNEILLE.

1892. The great sea-serpent. An historical and critical treatise. With the reports of 187 appearances . . . the suppositions and suggestions of scientific and non-scientific persons, and the author's conclusions. *8vo. pp. 15+592. illust. London.*

OUDEMANS, JOHANNES THEODORUS.

1917. Dodo Studiën. (Verhandl. der Kon. Akad. Wetenskap. Amsterdam, June 1917.) In Dutch. *4to. pp. 140. 16 pl. T. of c.*

An elaborate historical account of the Dodo and its allies, with bibliographies and lists of published illustrations, many of which are reproduced. Author's separate.

OUR ANIMAL FRIENDS. (**American Society for the Prevention of Cruelty to Animals.**) **1874**?–**1909**? *New York.*

OUR BIRDS. Monthly. Published by Legion 1, Knights of Audubon, Holyoke, Mass. Richard S. Brooks, Editor.

1880. Vol. I, No. 1, May. *12mo. pp. 8.* (All pub.)

OUR DUMB ANIMALS. (**Massachusetts Society for the Prevention of Cruelty to Animals.**) **1868**–*date.* *Boston.*

OUR FEATHERED FRIENDS. Wilson B. Rector, Belington, West Va. (Allegheny and Cheat Mountain Club.)

'Publication ceased years ago' is all the information the Compiler is able to elicit.

OUR FOURFOOTED FRIENDS. (**Animal Rescue League.**) **1902**–*date.* *Boston.*

OUSTALET, ÉMILE [1844–1905].

1877. *See* DAVID and OUSTALET.

1882. *See* RÉVOIL, G.

1885–91. Oiseaux. *4to. pp. 342. 6 col. pl.* (Mission scientifique du cap Horn, 1882–83. Zoologie.) *Paris.*

An account of the birds observed during the French expedition to Cape Horn in 1882–3, to which is added the results obtained by other investigators in the same region. Only one new species is catalogued. The volume in hand is Prof. Reichenow's autographed copy.

1893. *See* MILNE EDWARDS, ALPHONSE.

1894. *See* JAN-MAYEN.

1922. Nos oiseaux de mer de rivière et de marais. *See* TERNIER, L.

1926. Les oiseaux de la Chine. *See also* DAVID, A. and OUSTALET, É.

n.d. Les oiseaux du Cambodge, du Laos, de l'Annam et du Tonkin. *folio. pp. 76. pl. Paris.*
Author's excerpt from *Muséum d'histoire naturelle. Nouvelles archives*, 4e sér.

OU-YANG HSÜN [557–645].
n.d. I wen lei chü; Encyclopedia on all kinds of subjects, including animals, birds, fishes, insects, etc., chüan 90–100. *28·2×18·6 cm.* [G.]

OVERSIGT OVER DET . . . FORHANDLINGER K. DANSK VIDENSKABERNES SELSKAB. 1816, (1837), 1842–*date*. *See* COPENHAGEN.

OWEN, CHARLES [*fl.* 1746].
1742. An Essay towards a natural history of Serpents, etc. *4to. pp. 23+240+12. 7 pl. London.*
A useful account of the subject written in the popular style of the period.

OWEN, JEAN A.
1892. *See* JORDAN, DENHAM.

**** and **BOULGER,** G. S.
1894–5. The country month by month. *12 vols. in 2. 12mo. London.*
This is a popular account of outdoor life, especially of the birds. Several editions were published—one by Lord Lilford in 1902—most of them in the E.S.W. Library.

1895. The wild-fowl and sea-fowl of Great Britain, &c. *See* JORDAN, DENHAM.

**** and **HERMAN,** Ó.
1909. Birds useful and birds harmful. *See* HERMAN, Ó. and OWEN, J. A.

OWEN, RICHARD [1804–92].
1834. A monograph of the Ramphastidae, or family of toucans. Anatomy. *See* GOULD, JOHN.
This celebrated naturalist was head of the Natural History department of the British Museum, and added much to our knowledge of biology, especially of paleontology. He did not accept the more advanced concepts of the doctrine of evolution but was, nevertheless, an acute and accurate observer.

1839–43. *See* ZOOLOGY OF THE VOYAGE OF H.M.S. BEAGLE.

1846. A history of British fossil mammals and birds. *8vo. pp. 46+560. illust. London.*

1846. Lectures on the comparative anatomy and physiology of the vertebrate animals. Part I. Fishes. (All pub.) *8vo. pp. 12+308. illust. London.*

1849. On the nature of limbs. *8vo. pp. (2)+119. front. 2 pl. (1 fold.). 11 figs. London.*
In this discourse on animal movements, references to the wings and legs of birds will be found throughout.

1853. Descriptive catalogue of the osteological series contained in the museum of the Royal College of Surgeons. *2 vols. 4to.* Vol. I, *pp. xlv+350.* Vol. II, *pp. 351+914. London.*
CONTENTS. Vol. 1. Pisces, Reptilia, Aves, Marsupialia. 2. Mammalia Placentalia.

1854. A monograph of the Ramphastidae. Revised ed. Anatomy. *See* GOULD, JOHN.

1859. On the Classification and Geographical Distribution of the Mammalia, etc. *8vo.* [O.] *London.*

1860. Palæontology; or, A systematic summary of extinct animals and their geological relations. *8vo. pp. xv+420. 142 figs. (1 fold.). index. Edinburgh.*

1861. Palæontology or A systematic summary of extinct animals and their geological relations. 2nd ed. *8vo. pp. xvi+463. 174 figs. index. Edinburgh.*
Some parts of the 1860 edition are here omitted; a little is altered; and much is added. The portion dealing with birds is unaltered.

1862. Signed, unpublished, autograph letter of two pages on natural history subjects, written to Prof. Scherzer. In the Blacker Library.

1862. On the extent and aims of a National Museum of natural history. *8vo. pp. 4+126. illust. London.*

1863. Monograph of the Aye-Aye. *4to. London.*

1865. Memoir on the Gorilla. *4to. London.*

1866. Memoir on the dodo (Didus ineptus, Linn.); with an historical introduction by W. J. Broderip. *folio. pp. [6]+55. 12 pl. (2 col., 1 fold.). 5 figs. London.*
The author's memoir, revised and augmented, with reprints of W. J. Broderip's papers on the Dodo. The present copy is a presentation one from the author to His Royal Highness the Duke of Cambridge.

1866–8. On the anatomy of vertebrates. *3 vols. 8vo.* Vol. I, *pp. xlii+650. 452 figs. bibliogr.* Vol. II, *pp. viii+592. 406 figs. bibliogr.* Vol. III, *pp. x+915. 613 figs. bibliogr. 2 indexes. London.*
The present work completes the outline of the *Organization of the Animal Kingdom*, which was begun in 1843.

1879. Memoirs on the extinct wingless birds of New Zealand; with an appendix on those of England, Australia, Newfoundland, Mauritius, and Rodriguez. *2 vols.* 1 vol. *text.* 1 vol. *plates. folio. pp. 10+465+25. 128 pl. London.*
A classic treatise comprising text of a series of 41 chapters, with a volume of plates, in which all that is known of the subjects above is fully expounded. The osteology of the extinct birds is especially well treated and illustrated.

n.d. Aves. *4to. pp. 94. illust.* (Todd's *Cyclopaedia of Anatomy and Physiology*, vol. 1.)

n.d. Description of the skeleton of the Great Auk, or Garfowl (Alca impennis, L.). *folio. pp. 19. pl. London.*

OWEN. (Son of the Marshes.)
1892. Within an hour of London town. Among wild birds and their haunts, by a son of the Marshes. *pp. 314. London.*
A popular work by this well-known writer.

OWL, THE. Issued by Chapter 711, Agassiz Association. Devoted to the Cause of Increasing an Interest in Natural History, especially among Young Folks. H. Pearl Peck and Edward Wait, Editors. Quarterly.
1885–8. *3 vols. 8vo.* (All issued.) *Glen Falls, N.Y.*

OWL, THE. Pub. by F. E. Birch and W. B. Daley. Monthly.
1890. Vol. I, No. 1, Feb. *8vo. pp. 4.* (Suspended.) *Chatham, N.Y.*

OWSTON, ALAN.
1908. List of Japanese birds and eggs from Hondo, Kiushu, Hokkaido and the Loochoo and other islands. *4to. pp. 10.* *Yokohama.*
A useful though commercial list, with the scientific names, of 465 species of Japanese birds.

OXFORDSHIRE NATURAL HISTORY SOCIETY.
1900. United with Ashmolean Society to form Ashmolean Natural History Society of Oxfordshire.

OXFORD UNIVERSITY. Hope Department of Zoology.
1897–*date*. Hope Reports.

ÖYO-DOBUTSUGAKU-ZASSHI. *Tokyo.*
Printed in Japanese and English.
1930. March. Vol. 2, No. 1. Illustrated. (Published by the Japanese Society for Applied Zoology.)

PACIFIC COAST AVIFAUNA. Published by the Cooper Ornithological Club of California.
1900–30. *8vo. illust.* Appears irregularly. Each article is paged separately.
Santa Clara and Los Angeles, Cal.
As stated in the initial volume, *Pacific Coast Avifauna* is a 'series of publications issued by the Cooper Ornithological Club of California for papers . . . whose length prohibits their appearance in the official organ, *The Condor*'. They are all essays of high scientific value and constitute definite additions to our knowledge of American ornithology in general and of the Pacific coast in particular. In most instances the contributions to this series are issued as independent volumes in the form of authors' reprints, in which case they are separately listed and annotated in this *Catalogue*. Among them will be found monographs by Joseph Grinnell, R. C. McGregor, H. S. Swarth, A. B. Howell, and other well-known ornithologists.

PACIFIC FUR AND FEATHER. *See* NATURE NOTES DIGEST . . . FEATHER.

PACIFIC NORTHWEST BIRD AND MAMMAL CLUB. *See* MURRELET.

PACKARD, ALPHEUS SPRING [1839–1905].
1868. *See* AMERICAN NATURALIST.

1879. Zoology for students and general readers. *8vo. pp. viii+719. 545 figs. glossary. index.* *New York.*

1889. Zoology for high schools and colleges. *8vo. pp. viii+722. 545 figs. index.* *New York.*
A seventh and revised edition under a slightly different title of the author's original work, published in 1879.

PAESSLER, CARL WILHELM GOTTFRIED [1809–].
n.d. Die Eier der Europaeischen Voegel. *See* BAEDEKER, F. W. J.

PAEZ, RAMON.
1868. Travels and adventures in South and Central America. First series: Life in the llanos of Venezuela. *8vo. pp. viii+(2)+ix–xlviii+48+473. map. 13 pl. 19 figs.* *New York.*
Contains many references to the fauna of the country, including its bird life.

PAGE, CHARLES NASH [1860–].
1898. Feathered Pets. 12th ed. *pl.* *Des Moines, Ia.*

[1906]. Parrots and other talking birds, their food, care and training. *8vo. pp. 124. front.(col.). 31 figs. index.* *Des Moines, Iowa.*

PAGE, DAVID [1814–79].
1861. The past and present life of the globe. Being a sketch in outline of the world's life-system. *8vo. pp. 256. 205 figs. index. Edinburgh.*

PAGE, WESLEY THEODORE [d. 1923].
[1910]. Aviaries, bird-rooms and cages. *See* NORMAN, H.

1912. Aviaries and aviary life. *8vo. pp. xi+239. front. 173 figs. 14 plans (1 col. fold.). 2 indexes.* *Ashbourne.*
One of the most useful and reliable manuals in the English language.

1914. Species which have reared young; and hybrids which have been bred in captivity in Great Britain. *8vo. pp. vii+55. 4 pl. 9 figs. 3 append. index.* *Ashbourne.*
A list indicative of the title, with blank sheets for notes inserted opposite each page, arranged under Orders and Families only. With each order is given a short heading or synopsis comprising the various families it includes, etc. The present copy is a donation to Dr. Casey Wood from the author, with autograph letter inserted.

1919. Foreign birds for beginners. *8vo. pp. 6+60. front. (col. fold.). 7 pl. 7 figs. index.* *London.*

PAGET, CHARLES J. [1811–44] and **PAGET,** JAMES.
1834. Sketch of the Natural History of Yarmouth and its neighbourhood, containing catalogues of the species of animals, birds, reptiles, fish, etc. *8vo. pp. (2)+xxxii+88.* *Yarmouth.*

PALACKÝ, JAN. [1830–1908].
1885. Die Verbreitung der Vögel auf der Erde. *4to. pp. 4+128.* *Wien.*
A useful, scientific discourse on the geographic distribution of birds.

PALAEONTOLOGIA INDICA. **1865–1900.** *Calcutta.*

PALAEONTOLOGIA SINICA. *Peking.*
1922–*date*. Series A.
1922–*date*. ,, B.
1924–*date*. ,, C.
1923–*date*. ,, D.

PALAEONTOLOGIA UNIVERSALIS. **1903–12.** *Laval.*

PALAEONTOLOGISCHE ZEITSCHRIFT.
1913–*date*. *Berlin.*

PALEONTOLOGICAL BULLETIN. **1872–85?** *Philadelphia.*

PALÉONTOLOGIE LOMBARDE. **1858–81.** *Milan.*

PALEONTOLOGIST. **1878–83.** *Cincinnati, O.*

PALESTRA SCIENTIFICA DO RIO DE JANEIRO.
1858. Archives.

PALLARD, A. W. and **REDGROVE,** G. R.
1926. Short-Title Catalogue of Books printed in English, 1475–1640. *4to.* (Bibliog. Soc.) *London.*

PALLAS, PETER SIMON [1741–1811].
1766. P. S. Pallas . . . Miscellanea Zoologica, etc. *4to. pp. 12+224. 14 pl.* *Hagae Comitum.*
One of the earliest writings (on rare species) of this famous naturalist. The matter in the present volume was incorporated in his *Spicilegia Zoologica.*

1767. Spicilegia zoologica quibus novae imprimis et obscurae animalium species iconibus, descriptionibus atque commentariis illustrantur. *2 vols. 4to. illust.* *Berlin.*

1767–70. Dierkundig mengelwerk, in het welke de nieuwe of nog duistere zoorten van dieren door naauwkeurige afbeeldingen, beschryvingen en verhandelingen opgehelderd worden. *4to. 10 col. pl.* *Utrecht.*
This is Pallas' Miscellany, issued in 6 parts. It includes original descriptions of some marine forms that still bear the specific names given to them by the author. The complete set is very rare—no copy listed in the *Cat. Br. Mus.* (*Nat. History*).

1771–6. Reise durch verschiedene Provinzen des Russischen Reichs (1768–74). *3 pts.* (*vols.*). *4to. illust.* *St. Petersburg.*
To each volume of these journeys there is an appendix dealing with the natural history. Several subsequent editions and translations (one into English, Lond., 1802–3, 2 vols., illust.) of this classic work have appeared. The French translation, eight volumes and an Atlas, edited and amended by Lamarck and others, appeared in 1794.

1774–84. *See* GMELIN, S. G.

1778. Novae species quadrupedum e glirium ordine, cum illus. variis complurium ex hoc ordine animalium. *4to. pp. 8+388. 39 pl.* *Erlangae.*

1778. Miscellanea Zoologica. *4to. pl. Lugd. Batav.*
A later printing of the 1766 edition.

1778–9. Naturgeschichte merkwürdiger Thiere, in welcher vornehmlich neue und unbekannte Thierarten durch Kupferstiche, Beschreibungen und Erklärungen erläutert werden. *2 vols. 8vo. illust.* *Berlin.*
One of the noteworthy treatises on animal life by this celebrated traveler and naturalist.

1794. Voyages du professeur Pallas, dans plusieurs provinces de l'empire de Russie et dans l'Asie septentrionale; tr. de l'Allemand par M. C. Gauthier de la Peyronie. Nouv. éd., rev. et enrichie de notes par les CC. Lamarck . . . [et] Langlès. *8 vols. and atlas. 8vo and folio.* *Paris.*
A French edition of Pallas' famous *Reise*, with valuable notes by other naturalists.

ca. **1800.** Dierkundige besch. eeniger soorten van zeldzame dieren. *6 stukken* (*in 1 vol.*). *4to. 10 col. pl.*
One of the many editions of the author's *Dierkundig Mengelwerk.*

1811–42. Zoographia Rosso-Asiatica, sistens omnium Animalium in extenso Imperis Rossico et adjacentibus maribus, etc. *3 vols. 4to. illust.* (Wanting.) *Petropoli.*
According to the *Cat. Br. Mus.* (*Nat. Hist.*), p. 1505, the first two volumes of this classic were completed shortly after the author's death; that on fishes—extended by G. T. Tilesius—was finished in 1814. The plates were published 1834–42. The second edition, three volumes and atlas (1831), practically identical with the above is in the Blacker Library. Thereafter several partial reprints and addenda were published.

1831. Zoographia rosso-asiatica. 2nd ed. *4 vols. 4to. 3 vols. text. 1 vol. atlas. 48 pl.* *Petropoli.*

PALLASIA. *Dresden.*
1923–*date.* No. 1 as Zoologica Palæarctica.

PALMÉN, JOHAN AXEL [1845–1910].
1873. Finlands Foglar . . . beskrifna af M. von Wright, etc. *pp. 17+681+4.* *Helsingfors.*
Actually vol. XXII of *Finlands Natur*, but often published separately. *See also* WRIGHT, M.

1874. Om foglarnes flyttningsvägar. *Helsingfors.*

1876. Ueber die Zugstrassen der Vögel. *8vo. pp. vi+292. map* (*col. fold.*). *Leipzig.*
A study of the migration of Palaearctic birds, partly new and partly translated from the author's *Om Foglarnes Flyttningsvägar*, Helsingfors, 1874.

1879–88. Finska Fogelägg. *See* SUNDMAN, GÖSTA.

1887. Bidrag till kännedomen om Sibiriska Ishafskustens Fogelfauna, enligt Vega-Expeditionens iakttagelser och samlingar. *8vo. pp. 4+267. tab.* *Stockholm.*

PALMER, A. H.
1895. The Life of Joseph Wolf, Animal Painter. *8vo. pp. 18+328. illust.* *London.*
This admirable biography of a famous artist gives the reader many fine pictures of animal life as well as a complete list of the numerous, well-known works which Wolf illustrated with his facile pen and brush.

PALMER, CHARLES AMBROSE.
1914. Wild life in the woods & streams; rambling letters. *8vo. pp. xv+205. 8 pl. 50 figs. append.* *London.*
Tales of birds and other animals suitable for young people.

PALMER, THEODORE SHERMAN [1868–].
1893. *See* DEATH VALLEY EXPEDITION.

1896. The jack rabbits of the United States. *8vo. pp. 84. 4 pl. 3 maps. text-figs.* *Washington.*
Author's edition of an interesting monograph. A revised issue appeared in 1897.

1900. Laws regulating the transportation and sale of game. *8vo. pp. 89. front.* (*map*). *8 pl.* (*maps and diagrs.*). *index.* *Washington, D.C.*

1902. Legislation for the protection of birds other than game birds. *8vo. pp. 143. 3 pl.* (*maps*). *7 figs.* (*1 map*). *index.* *Washington, D.C.*
A revised edition of Bulletin No. 12, Biological Survey, issued in 1900, in which some new matter has been added, with corrections necessary to bring the work down to 1902.

1904. Index generum mammalium; a list of the genera and families of mammals . . . prepared under the direction of Dr. C. Hart Merriam. *pp. 984. indexes.* *Washington.*
This comprehensive, indispensable, and alphabetically arranged catalogue of genera includes orders and families. It was issued as *North American Fauna*, No. 23, but its value as a book of reference demands special mention here.

1922. Game as a national resource. *8vo. pp. 48. 4 figs.* (*maps*). *Washington, D.C.*
Bulletin summarizing present information on some of the larger problems of American game conservation both national and international. It is prepared for use in legislation especially.

PALMER, WM.
1898–9. *See* UNITED STATES. BUREAU OF FISHERIES.

PALMSTRUCH, JOHAN WILHELM [1770–81].

1806–9(25). Svensk Zoologi . . . af C. Quensel, etc. *2 vols. 8vo. 72 col. pl.* *Stockholm.*

This scarce but quite important treatise on the zoology of Sweden was begun by G. J. Billing. The text was written for Heft 1 by C. Quensel, after whose death it was continued by O. Swartz. Heft 12 was supplied by J. W. Dalman.

PANDER, CHRISTIAN HEINRICH [1794–1865] and **ALTON,** J. W. E. D'.

1821–38. Vergleichende Osteologie, etc. *2 vols. ob. folio. illust.* (Wanting.) *Bonn.*

An early but very important, profusely illustrated work on comparative osteology, including all the subclasses of vertebrate zoology.

1856. Monographie der fossilen Fische des silurischen System der Russisch-Baltischen Gouvernements. *4to. pp. 10+91. 9 pl.* *St. Petersburg.*

A useful contribution to the paleontology of the Russian Empire.

PANSCH, ADOLF [1841–87]. **1873–4.** *See* HARTLAUB and LINDEMAN, *eds.*

P'AN TZÛ-MU [12th cent.].

1579. Chi tsuan yüan hai. A classified encyclopedia, with material on animals, birds, butterflies, aquatic creatures, etc., chüan 97–100. *26·2 × 17 cm.* [G.]

PANUM, PETER LUDWIG [1820–85].

1860. Untersuchungen über die Entstehung der Missbildungen zunächst in den Eiern der Vögel. *8vo. pp. 12+260. 12 pl. (107 figs.).* *Berlin.*

An important work on malformations in the eggs of birds, with chapters on the causes of their abnormal development. The volume is a valuable contribution to comparative embryology.

1880. Naturvidenskabernes Udvikling i Danmark 1648–1766.

A report of the University program during the stated period.

PAPEZ, JAMES WENCESLAS [1883–].

1929. Comparative Neurology. *8vo. pp. 554. 315 illust.* *New York.*

An introductory laboratory course on the form of the [vertebrate] nervous system, that furnishes the best outline in English of an important subject. This useful treatise is divided into three parts: the gross structure of the brain of animals; the microscopic structure of the mammalian nervous system, and the brains of lower vertebrates, including amphioxus, fishes, and amphibians.

PAPPENHEIM, P.

1901–3. *See* GERMANY. Deutsche Südpolar-Expedition.

1909. *See* BRAUER, AUGUST.

PAQUET, HENRI REMI RENÉ [1845–], (*pseud.*) NÉRÉE QUÉPAT.

1873. Monographie du chardonnerat. *8vo. pp. 4+46. illust.* *Paris.*

A complete account of the Goldfinch, 'le plus bel oiseau d'Europe'.

1874. Ornithologie Parisienne; ou, Catalogue des oiseaux sédentaires et de passage qui vivent à l'état sauvage dans l'enceinte de la Ville de Paris. *8vo. pp. 65+2.* *Paris.*

1875. Monographie du cini. *8vo. pp. 2+59. 2 col. pl.* *Paris.*

The Serins are systematically dealt with in the above monograph, the author claiming that these common birds have been neglected by writers.

1899. Ornithologie du Val de Metz. Vogelkunde des Metzer-Thals. *8vo. pp. 7+175.* *Paris.*

A scientific account of the birds that frequent the Woippy territory, including the Metz region. Both the vernacular and systematic names are given. From the Cabanis-Reichenow collection.

PARÁ, BRAZIL. *See* MUSEO GOELDI DE HISTORIA NATURAL.

PARIS, PAUL.

1906. Les oiseaux d'Europe, tableaux synoptiques. *12mo. pp. 248+2. 25 pl. figs. in text.* *Paris.*

A handy pocket manual, in tabular form, for the use of students and ornithologists in the field. 560 species and subspecies are listed, most of them depicted in the text.

1907. Catalogue des Oiseaux observés en France. *8vo. pp. 87.* *Paris.*

PARIS.

1687–1702. Académie des sciences. The natural history of animals, containing the anatomical description of several creatures dissected by the Royal Academy of sciences at Paris . . . done into English by [Alexander Pitfield]. Extra engr. t.-p. dated 1687 called 'Memoires for a natural history of animals'. *folio.* *London.*

1836–77. Annales des Sciences Naturelles de Paris: Zoologie et Paleontologie.

1839–56. Archives du Muséum d'Histoire Naturelle. Publiées par les Professeurs-Administrateurs de cet Établissement. Vols. I–VIII. *4to.*

1865–74. Nouvelles Archives. Vols. I–X.

1854–69. Société Zoologique d'Acclimatation. [First Series], 10 vols. Second Series, vols. I–VI. *8vo.*

1922–30. Fédération des groupements français pour la protection des oiseaux. Bulletin. *4to. illust.* *Paris.*

See also INSTITUT DE FRANCE.

See also MUSÉUM D'HISTOIRE NATURELLE.

PARK, CARTON MOORE.

1900. A Book of Birds. *folio. no p. 26 half-tone pl.* *London.*

Popular, artistic pictures of 26 birds with short descriptive text on opposite sheets.

PARKER, ERIC [1870–].

1918. Shooting days. *8vo. pp. x+344. index.* *London.*

Dealing with the sport of shooting game and wildfowl in Great Britain, but from the viewpoint of the naturalist, rather than of the expert with the gun.

PARKER, THOMAS JEFFREY [1850–97].

1900. A course of instruction in zootomy (vertebrata). *8vo. pp. xxiii+397. 72 figs. index.* *London.*

A continuation of the zoological part of Huxley and Martin's *Elementary Biology*. It has been several times reprinted.

**** and **HASWELL,** W. A.

1910. A text-book of zoology. 2nd ed. *2 vols. 8vo.* Vol. I, *pp. xxxix+839. 704 figs. index.* Vol. II, *pp. xx+728. figs. 705–1241. append. index.* *London.*

**** and **PARKER,** W. N.

1920. An elementary course of practical zoology. *12mo. pp. xii+638. 168 figs. index.* *London.*

**** and **HASWELL,** W. A.

1920. A manual of zoology. *8vo. pp. xxv+563. 327 figs. index.* *New York.*

PARKER, William Kitchen [1823–90].

1868. A monograph on the structure and development of the shoulder-girdle and sternum in the *Vertebrata. 4to. pp. xi+299. 30 pl. (col.). 21 figs. index.* *London.*

Reprinted by the Ray Society.

1873. On Ægithognathous Birds. *9 pl.* *London.*

****** and THOMSON,** C. W.

1880–95. *See* CHALLENGER, VOYAGE OF.

1890. On the Morphology of the Duck and Auk tribes. *9 pl.* *Dublin.*

1891. On the morphology of a reptilian bird, Opisthocomus cristatus. *folio. pp. 43. pl.* *London.*

PARKHURST, Howard Elmore [1848–].

1894. The birds' calendar. *8vo. pp. viii+351. 23 pl. index.* *New York.*

1897. Song birds and water fowl. *8vo. pp. viii+286. 18 pl. index.* *New York.*

PARKINSON, James [1755–1824].

1833. Organic remains of a former world. 2nd ed. *3 vols. 4to. col. pl. and text-figs. indexes.* *London.*

PARREIDT, Reinhold [1877–].

1901. Beiträge zur anatomie des auges . . . und zur entwicklung des pekten im vogelauge. *folio. pp. 28. 11 pl.* *Leipzig.*

Inaugural dissertation, Leipzig.

PARROT, Carl.

1903. Ornithologische Wahrnehmungen auf einer Fahrt nach Aegypten. *8vo. pp. 50.* *München.*

1905–14. Genera Avium. *See* WYTSMAN, P.

PARRY, William Edward [1790–85].

1828. Narrative of an attempt to reach the North Pole in boats . . . [from] H.M.S. Hecla in 1827. *4to. pp. 22+229. 6 pl. 2 maps.* *London.*

One of several accounts of Parry's celebrated voyages to the North Pole, appendices to which describe the zoology of the regions visited, in this instance by J. C. Ross. The fauna of the 1818 voyage ('Hecla' and 'Griper') was described by E. Sabine; that of 1821–3 ('Fury' and 'Hecla') by J. Richardson; of the same ships in 1824–5 by J. C. Ross.

PARSONS, James [1705–70].

1747. (Die) natürliche Historie des Nashorns, welche von Doctor Parsons in einem Schreiben an Martin Folkes . . . und aus dem Englischen in das Deutsche übersetzt worden von G. L. Huth. *4to. pp. 16. 3 pl.* *Nürnberg.*

PARZUDAKI, Émile.

1856. Catalogue des oiseaux d'Europe offerts en 1856 aux ornithologistes. *4to. pp. [2]+25.* *Paris.*

This is a briefly annotated, systematic list of the birds of Europe to which is added an appendix treating in the same fashion the birds of Algiers; and a second appendix listing exotic birds acclimatized in Europe. Finally, a list of migrants. From the P. L. Sclater collection.

PASADENA ACADEMY OF SCIENCES.

1897–8. Publications. (All pub.?) No. 1. Joseph Grinnell, Report on the birds recorded during a visit to the islands of Santa Barbara, San Nicolas and San Clemente, in the spring of 1897. No. 2. Birds of the Pacific Slope by J. Grinnell, *pp. 52,* 1898.

PASCAL, T.

1915. Manuale teorico practico d'avicoltura. *12mo. pp. 280. illust.* *Catania.*

PASCOE, Francis Polkinghorne [1813–93].

1885. List of British vertebrate animals. *16mo. pp. 12+85. index.* *London.*

PASHLEY, H. N. [1843–1925].

1925. Notes on the birds of Cley, Norfolk. *8vo. pp. 8+138. 2 pl.* *London.*

PATCH, Edith Marion [1876–].

1922. Bird stories. *8vo. pp. 212. 38 figs.* *Boston.*

PATERSON, William [1755–1810].

1789. A narrative of four journeys into the country of the Hottentots, and Caffraria. *4to. pp. 12+171. 17 pl. map.* *London.*

PATON, E. Richmond.

1908. *See* PIKE, O. G.

1925. The birds of Hareshawmuir (Ayr, 140 species). *8vo. pp. 125. map. index.* *Kilmarnock.*

****** and PIKE,** Oliver G.

1929. The Birds of Ayrshire [235 species]. *8vo. pp. 20+228. 24 pl. text-figs. index.* *London.*

PATTEN, Charles Joseph.

1902. The Aquatic Birds of Great Britain and Ireland. *8vo. pp. 30+590. 56 pl.* *London.*

1906. The aquatic birds of Great Britain and Ireland. *8vo.* *London.*

Second edition, with appendices. The *editio princeps* was issued in 1902.

1931. Triumphs in Bird-Life. *8vo. pp. 58.* *London.*

PATTEN, William [1861–].

1912. The evolution of the vertebrates and their kin. *4to. pp. 21+486. illust.* *Philadelphia.*

PATTERSON, Robert [1802–72].

1852. Introduction to zoology, for the use of schools. *2 pts. 12mo. 330 figs.* *London.*

The first issue appeared in 1846, with a twenty-eighth thousand in 1863.

PATTERSON, Robert Lloyd.

1880. Birds, Fishes, etc., of Belfast Lough. *8vo. pp. 267. map.* *Belfast.*

1881. The birds, fishes & cetacea of Belfast Lough. 2nd ed. *London.*

PAULLI, Simon [1865–].

1899. Om Pneumaticiteten af Kraniet hos Pattedyrene; en morfologisk Studie. *8vo. pp. 6+178. illust.* *Kjøbenhavn.*

PAULLINI, Christian Franz [1643–1712].

1685. Cynographia curiosa seu Canis Descriptio, etc. *4to.* [O. 3631.] *Norimb.*

1695. De Asino. *8vo.* *Frankofurti ad Moenum.*

The author, a physician-naturalist, was better known as a botanist but wrote several monographs on vertebrates as the foregoing titles show—from the Osler Library.

PAULSEN, J. H.

1854. Ornithologischer Beitrag zur Fauna Groenlands. *See* HOLBÖLL, C. P.

PAUW, Johann Cornelius de. **1730.** *See* PHILES.

PAYNE-GALLWEY, Ralph William Frankland [1848–1916].

1882. The fowler in Ireland. *8vo. pp. 13+503. 17 pl. text-figs.* *London.*

The works of this author describe effective methods of reducing the wild bird population by more or less discriminating slaughter. His incidental contributions to natural history, that sometimes palliate the deeds of the so-called 'sportsman', are not of much scientific value.

1886. The book of duck decoys, their construction, management and history. *4to. pp. 10+214. 15 col. pl. 24 text-figs.* *London.*

1896. Letters to young shooters, third series, comprising a short natural history of British wildfowl and complete directions in shooting wildfowl. *8vo. pp. 29+630. 37 pl. 164 text-figs.* *London.*

1913. High pheasants in theory and practice. *8vo. pp. vi+79. 7 figs. T. of c.* *London.*

PEABODY, William Bourne Oliver [1799–1847].

1839. *See* Massachusetts. Reports on the fishes, reptiles and birds of Massachusetts.

PEABODY MUSEUM OF SALEM.

Salem, Mass.

1867–87. Annual Report.

1869–86. Memoirs of the Peabody Academy of Sciences.

PEALE, Titian Ramsay [1800–85].

1845–76. *See* United States. Voyages, Wilkes Expedition.

1848. United States Exploring Expedition. During the years 1838, 1839, 1840, 1841, 1842. Under the command of Charles Wilkes, U.S.N. Vol. VIII. Mammalia and Ornithology by Titian R. Peale. *4to.* Pt. I, *pp. (4)+v–xxv+17–57. 9 figs.* Pt. II, *pp. 58–299+(3)+303–38. 12 figs.* *Philadelphia.*

The above is the title of a photostat copy of the original edition which is very rare, the present entry having been prepared from a copy in the library of the U.S. National Museum. It is an account of the expedition, which visited numerous localities in a voyage around the world, vol. VIII being originally prepared by Peale, the ornithologist and mammalogist of the expedition, and which was published in 1848, without the plates, however, which he had prepared. The volume was suppressed and replaced by *Mammalogy and Ornithology* by John Cassin, 1858, with a folio atlas. In the preface to this later volume, the author says: In 1851 I was engaged . . . to superintend the preparation of plates for the Atlas of Mammalogy and Ornithology . . . and subsequently to prepare the present volume . . . From the notes and observations of Mr. Titian R. Peale . . . much . . . has been derived . . . Many of the drawings [for the plates of the Atlas] were made by Mr. Peale.' In the present collation, part I refers to the mammals, and part II to the birds, pp. 58–299, the remainder of the volume, pp. 303–38, consisting of a catalogue of the specimens obtained, mammals, etc., 84, birds 762.

[**1924**]. Typed copy of the (suppressed) introduction to [as well as a history, both manuscripts in the handwriting of the author] . . . the United States Exploring Expedition under command of Charles Wilkes, U.S.N. No. VIII. Mammalia and ornithology. *folio. n.p.*

The original of this 'Introduction' to Peale's volume of 1848 is in the library of the *American Museum of Natural History*, together with a MS. copy of the report itself, both in T. R. Peale's handwriting. Whether they are the actual *originals* of Peale's MS., or only a draft, Dr. C. W. Richmond says he does not know, but as they are done in Peale's hand they are presumably authentic. The MS. of the report has some notes and memoranda that did not appear in the printed volume. The 'Introduction' was suppressed in the printed volume. The above typed copy was made by Dr. Chas. R. Richmond for Dr. Casey Wood on January 4, 1924.

PEARLESS, *Mrs.* Anne (born Pratt) [1806–93].

1852. Our native songsters. *12mo. pp. 8+350. 72 col. pl. figs. in text. T. of c.* *London.*

An interesting popular account of British song-birds (that ran through several editions) interspersed with numerous personal observations about them.

1857. Our native songsters.

Another printing, identical with the edition of 1852.

PEARSE, Arthur Sperry [1877–].

1926. Animal Ecology. 1st ed. *8vo. pp. 9+417.* *New York.*

Introductory manual with a good bibliography on titles relating to the life-conditions of animals.

******** and **HALL,** F. G.

1928. Homoiothermism; the origin of warm-blooded vertebrates. *8vo. pp. 10+119. illust.* *New York.*

PEARSON, Edwin.

1868. Catalogue of . . . collection of books and wood engravings by, or relating to Thomas and John Bewick. *4to. pp. iv+57. 23 figs.* *London.*

PEARSON, Henry J. [1850–].

1899. 'Beyond Petsora eastward'; two summer voyages to Novaya Zemlya and the islands of Barents Sea. *8vo. pp. xiv+335. front. (col., eggs). 88 pl. 8 figs. 7 append. index.* *London.*

The text is principally ornithological, Appendix G, pp. 311–24, containing an annotated list of the species of birds observed by the party.

1904. Three summers among the birds of Russian Lapland. *8vo. pp. 16+216. 68 pl. 2 append. index.* *London.*

PEARSON, Leonard [1868–] and **WARREN,** B. H.

1897. Diseases [and enemies] of poultry. *2 vols. 8vo. Indexes.* Vol. I, *pp. 116. 2 pl. (col.). 39 figs.* Vol. II, *pp. xxiv+750. 93 pl. (col.). 8 plain.* *Harrisburg, Pa.*

PEARSON, Thomas Gilbert [1873–].

1901. Stories of bird life. *12mo. pp. 236. 79 figs. T. of c. 2 append.* *Richmond, Va.*

An early appeal for an intimate and universal study of bird life by this well-known naturalist, now the active head of the *National Association of Audubon Societies.*

******** and **others.**

1917. Birds of America. *3 vols. 4to. index.* Vol. I, *pp. xviii+272. front. (col.). 40 pl. (col., 2 eggs). 208 figs. in text.* Vol. II, *pp. xiv+271. front. (col.). 36 pl. (col., 1 eggs). 195 figs.* Vol. III, *pp. xviii+289. front. (col.). 31 pl. (col., 1 eggs). 177 figs. (2 maps, 2 charts). glossary. bibliogr.* *New York.*

This admirably illustrated and well-written treatise certainly 'meets the demand for a single work which will present a complete review of what is known to-day about American birds'.

1917. The bird study book. *8vo. pp. xv+258. front. (col.). 16 pl. 26 figs.* *Garden City, N.Y.*

This is the first edition; an identical reissue was made in 1919.

1918. Tales from birdland. *8vo. pp. (12)+237. front. (col.). 45 figs.* *Garden City, N.Y.*

******, BRIMLEY,** C. S., and **BRIMLEY,** H. H.

1919. Birds of North Carolina. *8vo. pp. xxiii+380. 24 pl. (col.). map. 276 figs. append. 3 indexes.* *Raleigh, N.C.*

1919. Birds of field, forest and park. *See* GILMORE, A. F.

1927. Bulletin of The International Committee for Bird Protection. *8vo. pp. 52. cuts in text.* *New York.*

Short papers by representatives of Europe and America on this important study, with an account of the organization.

PEASE'S FEATHERED WORLD. Monthly Journal devoted to Cage Birds, etc.
Vol. I, No. 1 (?), July, 1883; No. 2 (?), Aug. 1883; No. 3, Sept. 1883. (All issued?)

PÊCHE MARITIME. **1918**–*date.* *Paris.*

PÊCHE ET PISCICULTURE. **1891–1914?** *Brussels.*

PÊCHEUR. **1889**–*date.* *Paris.*

PECHUËL-LOESCHE, EDUARD [1840–].
1890–3. *See* BREHM, A. E.

PEEK, HEDLEY. *See* (THE) ENCYCLOPEDIA OF SPORT.

PEEL, CHARLES VICTOR ALEXANDER.
1900. Somaliland; being an account of two expeditions into the far interior together with a complete list of every animal and bird known to inhabit that country, and a list of the reptiles collected by the author. *8vo. pp. xv+345. front. 7 pl. 38 figs. 1 map (fold.). append. index. London.*

PEKIN NATURAL HISTORY SOCIETY.
1926–9. Bulletin. Vols. 1–3. *4to.* *Peking.*

PELICAN. *Newark.* **1903**–*date.*

PELLECHET, M.
1897–1909. Catalogue générale des incunables. Vols. 1–3. (All pub.) *Paris.*

A well-known, important work of reference.

PELLEGRIN, JACQUES. **1907.** *See* CHEVALIER, AUGUSTE.

PELLY, STANLEY AUGUSTUS.
[1918]. Glossary and notes on vertebrate palaeontology. *8vo. pp. 9+113.* *London.*

PELZELN, AUGUST VON [1825–91].
1862–3. Uebersicht der Geier und Falken der k.k. ornithologischen Sammlung. *2 vols. 8vo.* *Wien.*

1865. Vögel. *folio. pp. 4+176. 6 pl.* *Wien.*

An important contribution to the systematic study of the birds collected during the *Reise der Oesterreichischen Fregatta Novara um die Erde in den Jahren 1857–59.* A number of new species are fully described.

1871. Zur Ornithologie Brasiliens; Resultate von Johann Natterers Reisen in den Jahren 1817 bis 1835. *8vo. pp. 6+462+77. 2 maps (1 col.).* *Wien.*

According to the reverse of the title-page this catalogue of the birds of Brazil from the Natterer collection and other sources—in all representing 1,680 species—was issued in four parts between 1868 and 1870. The monograph is indispensable to students of South American ornithology, as it contains not merely an annotated list of the avifauna of Brazil but an analysis of the bird life by the best authority of his day. The volume in hand is a presentation copy with the author's autograph.

**** and **HOLUB,** E.
1882. Beiträge zur Ornithologie Südafrikas. *See* HOLUB, E. and PELZELN, A. VON.

1886. *See* FISCHER, FERDINAND.

**** and **MADARÁSZ,** JULIUS VON.
1887. Monographie der Pipridae, oder Manakin-Vögel. *folio. pp. (2)+13. 5 pl. (col.).* *Budapest.*

PEMBER, KARL ALBRECHT [1880–1928].
1923. A list of birds of Woodstock, Hartland and vicinity. *8vo. pp. 9. pl.* *Woodstock.*

PENARD, FREDERIK PAUL and **PENARD,** A. P.
1908–10. De vogels van Guyana (Suriname, Cayenne en Demerara). *2 vols. 4to. index.* Vol. I [1908], *pp. xliii+587. 161 figs. in text.* Vol. II, 1910, *pp. 587. 122 figs. in text.* *Paramaribo.*

The best systematic treatise on the birds of the Guianas extant. The illustrations are numerous but not very clear.

PENARD, THOMAS E.
1924. Historical sketch of the ornithology of Surinam. *8vo. pp. 24.* *The Hague.*

In this brief sketch the high spots, so to speak, are touched only, the outline, however, being sufficiently comprehensive to give the reader a fair idea of what has already been accomplished. Reprint from *De West-Indische Gids,* Aug. 1924. Autographed copy by the author to Dr. Casey Wood.

P'ÊNG TA-I [17th cent.].
1615. Shan t'ang ssû k'ao; Encyclopedia, containing material for animals, birds, fishes, insects, etc. *28×17·2 cm.* [G.]

PENNANT, THOMAS [1726–98].
1766. The British zoology. Class 1. Quadrupeds. Class 2. Birds. Published (anonymously) under the inspection of the Cymmrodorion society. *folio. pp. (14)+162+(4). 125 pl. (col.). index.* *London.*

Issued in four parts from 1761–6 with the 107 plates as specified on the title-page. To this a fifth part containing 25 additional plates was *afterwards* added, bringing the number of plates to 132 (11 of mammals and 121 of birds). The above is the first edition and is anonymous, the author's name not appearing on the title-page (according to Coues) until the issue of the fifth edition, although it occurred at the end of the preface of the fourth edition, 1776. Other editions appeared at various dates, a new one in 1812.

1773. Genera of birds. *8vo. pp. 32+66. illust. index.* *Edinburgh.*

This is the rare first printing, from the Cabanis-Reichenow collection, without plates. It is a well-known catalogue of birds arranged under their (generic) vulgar names, with equivalents in Latin. The work opens with a description of birds in general, and there is an anatomical figure of a bird vignetted on the title-page. A second edition was printed in 1781, with 15 plates.

1776. British Zoology. 4th ed. *4 vols. 8vo. index.* *Warrington and London.*

This the fourth edition appeared in two issues, *8vo* and *4to,* the text, however, being different from that of the first edition, 1766. The regular issue appears to have uncolored plates. The illuminated title-pages and subtitle-pages of vols. I–III bear a London imprint at variance with the Warrington imprint on the printed title-pages, but agreeing with that on the illuminated (and only) title-page of vol. IV. The ornithological matter is contained in vol. I, *pp. 153–418, pl. XV–LIX,* and vol. II entire. Only vol. I is inscribed 'Fourth edition'.

1776. British zoology. 4th ed. (variant). *4 vols. 8vo.* *Warrington.*

The copy in hand is unique. It differs from the regular issue of 1776 in that 26 of the plates are colored, and there are inserted 31 extra plates from other sources, 19 of which are original water-color drawings. The ornithological and other matters are the same as in the regular issue of same date.

1781. Genera of birds. 2nd ed. *8vo. pp. xxv+68. 15 pl. 1 fig. index.* *London.*

The second edition of the rare first printing of 1773, which was issued without plates. The original intention of giving a plate to each genus seems to have been discouraged by the appearance of Latham's *General Synopsis of Birds,* 1781–5.

[**PENNANT**, T. (*contd.*)]

1781. History of Quadrupeds. *2 vols. 4to. pp. 24 +566. 52 pl.* *London.*

Second edition (with new title) of the rare *Synopsis of Quadrupeds*, 1771. A third edition appeared in 1793.

1784–5. Arctic zoology. *2 vols. 8vo. indexes.* Vol. I, *pp. 200+185. 8 pl.* Vol. II, *pp. 187–599. 15 pl.* *London.*

This famous treatise, for which a Supplement (1787) was afterwards written and of which a second edition appeared in 1792, was at first intended to bear a title indicating a study of the fauna of King George's dominions in North America. However, about this time the American colonies separated from the mother country, and the author adopted the above rather misleading caption.

1786. Histoire naturelle des oiseaux par le Comte de Buffon and les Planches enluminées. *4to. pp. vii+122. 2 indexes.* *London.*

This work consists of two Indexes. The first and important one gives facility to the reading of the last nine volumes of Buffon's *Ornithologie* and the other to the *Planches Enluminées*. In the first column of Index I are the birds, named according to Buffon with reference to volume and page with the addition of the Linnaean names. In the second column are references to the *Planches* as quoted by Buffon, the last column containing the English names used by Latham in his *Synopsis of Birds*.

1787. Thiergeschichte der Nördlichen Polarländern. *2 vols.* *Leipzig.*

A German translation of the *Arctic Zoology*. There is also a Dutch (Amsterdam) edition in the Blacker Library.

1789. Le nord du globe; ou, Tableau de la nature, dans les contrées septentrionales; tr. de l'anglais par Pierre Le Tourneur. *2 vols. 8vo.* *Paris.*

A French translation of the *Arctic Zoology*.

1790. Indian zoology. 2nd ed. *8vo. pp. viii+161. 16 pl.* *London.*

A reprint of the author's very rare original *Indian Zoology*, with a translation of certain matters by Forster from his Latin-German edition of 1781; also a list of oriental and near-oriental animals in *The Indian Faunula*.

1792. Arctic Zoology. *3 vols. 4to.* Vol. I, *pp. (4)+376. 3 vignettes (2 col.). 14 pl. (7 col.). 36 text-figs. (35 col.).* Vol. II, *pp. (4)+418+(13). 2 vignettes (col.). 20 pl. (10 col.). 30 text-figs. (col.). index.* Vol. III, *pp. (14)+cccxxxiv+(8). 2 front. (1 col.). 55 pl. (49 col., 2 fold.). 127 text-figs. (125 col.). 4 maps (2 col., 2 fold.). index.* *London.*

A unique copy of an *édition de luxe*, printed on large paper with the plates in two states. The volumes are further enriched by a series of over 170 exquisite original water-color drawings of natural history specimens and scenes in the arctic regions. These drawings are on separate leaves or they decorate the wide margins to the text and are by Mercatti and Moses Griffiths, in many cases from sketches by Pennant himself. Vol. I contains the quadrupeds and part of the birds, vol. II the remainder of the birds, reptiles, fish, and insects, while vol. III is devoted to the introduction to the Arctic zoology. They form three remarkable volumes on Natural History.

1792. Arctic Zoology. *2 vols. folio.* Vol. I, *pp. (4)+376. 7 pl. (5 birds).* Vol. II, *pp. (4)+418+(13). 10 pl. (birds). index.* *London.*

This copy of the second edition differs from that of the first in the addition of the supplement (vol. II) which takes in reptiles, fish, insects, and shells. The vignettes to both volumes are colored instead of plain as in the previous edition.

1793. History of quadrupeds. 3rd ed. *2 vols. 8vo. 69 pl.* *London.*

This is a unique author's copy with Pennant's manuscript notes throughout.

1812. British zoology. *2 vols. 8vo. append.* *London.*

The fifth edition, in *8vo* and *4to*, with engraved titles and 294 plates. This was the first edition in which the author's name appears on the title-page. It was published posthumously and, according to Mullens, it was edited by his son-in-law Hanmer, who had assistance from Latham and others. It contains much matter for which Pennant is not responsible. It is also said to have been published by his son, D. Pennant. A good deal of mystery surrounds these matters.

PENNSYLVANIA AUDUBON SOCIETY. Bird call. M. Nos. 1–6, January–June 1887. Phila., 1887. *4to.*

The Compiler is indebted to Dr. Witmer Stone for the following notes on this rare periodical: 'So far as I know only six numbers (January to June) were published in Philadelphia by the original Pennsylvania Audubon Society in 1887. They had no cover, the title being printed across the top of the first page, and they covered eight pages each, the last page being devoted to advertisements. The subject-matter was almost entirely quotations from other journals, largely those of the Society for the Prevention of Cruelty to Animals. I am not sure who was the editor, as no name is given, but I think the late Mrs. Brinton Coxe was the responsible one.'

PENNSYLVANIA UNIVERSITY. Zoological Laboratory.

1893–*date.* Contributions.

PENZANCE NATURAL HISTORY AND ANTIQUARIAN SOCIETY. *See* NATURAL HISTORY SOCIETY OF PLYMOUTH, ENGLAND.

PERCHERON, GASTON.

1878. Le perroquet, histoire naturelle, hygiène, maladies. *8vo. pp. 11+208. 20 col. pl. T. of c.* *Paris.*

PERCIVAL, ROBERT [1765–1826].

1805. An account of the island of Ceylon, containing its history, geography, natural history. *4to. pp. xii+446. 4 pl. 3 maps (fold.). append. index.* *London.*

The first edition appeared in 1803, without the appendix.

PERINI, GAETANO [d. 1869].

[**1858**]. Degli uccelli veronesi. *8vo. pp. 13+320. index.* *Verona.*

A separately published, systematic, complete, and valuable contribution to the study of the birds found in and about Verona. The present copy is from the Godman Library.

1874. Manuale dell' Ornitologia Veronese. *2 (pts.) vols. 8vo.* *Verona.*

PERIODICO DI SCIENZE MATHEMATICHE E NATURALI PER L'INSEGNAMENTO SECONDARIO, ROME. 1873–85.

PERIÓDICO ZOOLÓGICO. (**Sociedad Zoológica Argentina.**) *Buenos Aires, Córdoba.*

1874–81. Vols. I–III (all pub.).

PERIQUET, L.

1915–16. Missions de délimitation Afrique Équitoriale française, etc. *3 vols. 4to.*

PERLEY, MOSES H. [1804–62].

1852. Reports on the sea and river fisheries of New Brunswick. 2nd ed. *8vo. pp. 16+294.* *Fredericton.*

PERMANENT WILD LIFE PROTECTION FUND. *New York.*

1915–22? Bulletin.

PERNAU, F. A. VON.

1754. Gründliche Anweisung alle Arten Vögel zu fangen etc., nebst Anmerkungen ueber Hervieux von Canarien Vögelen. *8vo. pp. 696. front. 45 pl. index.* *Nürnberg.*

A rare work on the capture of wild birds, with an appendix referring to Hervieux's well-known book on Canaries. Not in the *Br. Mus. Cat.* (*Nat. Hist.*).

PÉRON, FRANÇOIS [1775–1810].
1807–16. Voyage de découvertes aux terres Australes, exécuté . . . pendant les années 1800–1804. *3 vols. 4to and folio.* *Paris.*
CONTENTS. Vols. [1–2]. Texte par François Péron. [3.] Atlas par C. A. Lesueur et N. M. Petit [et L. C. D. de Freycinet].
A very important contribution to Australasian natural history.

PERRAULT, CLAUDE [1613–88].
1671–[6]. Mémoires pour servir à l'histoire des Animaux. *folio. illust.* *Paris.*
This publication of the *Académie des Sciences* has had several editions and has been translated into English (1688). The figured fauna form a distinct contribution to comparative anatomy.

PERRIER, JEAN OCTAVE EDMOND [1844–1921].
1893–1928. Traité de Zoologie. *3 vols. 8vo. 8 fascicles. illust. text.* *Paris.*
This is among the largest and most complete treatises on zoology in any language begun (if not completed) by a famous French naturalist and writer.

1902–6. La Vie des Animaux illustrée, sous la direction de E. Perrier. *4 vols. 8vo. col. illust.* *Paris.*
The mammals are described and portrayed in vols. I and II by A. Ménégaux (1902–4); the birds in vols. III and IV by J. Salmon, and all well done.

1913. (L')élevage de l'autruche. *See* MÉNÉGAUX, H. A.

PERRY, GEORGE.
1811. Arcana; or, The museum of natural history: containing the most recent discovered objects, embellished with coloured plates and corresponding descriptions; with extracts relating to animals, and remarks of celebrated travellers; combining a general survey of nature. *8vo. pp. (6)+284+(4). front. (col.). 71 pl. (col., 1 plain). index.* *London.*
This rare treatise was issued in parts, and probably began to appear in 1810, for the earlier plates are marked as published on Jan. 1 of that year. The British Museum Catalogue gives the number of colored plates as 84 and the size of the volume as 4to. The present copy is 8vo and contains 72 plates only, of which one is uncolored. A MS. note states that 'this volume contains all the numbers that were published of this work; the Publisher failed'; also that the work is 'excessively rare, 72 col. pl., complete set 84'.

PERRY, MATTHEW CALBRAITH [1795–1858].
1856. Narrative of the expedition of an American squadron to the China seas and Japan . . . 1852–54. *3 vols. 4to. illust.* *Washington.*
Although this expedition was not projected nor organized for exploring or scientific purposes, the artist, William Heine, made many valuable zoological collections at various points in the course of the voyage. The birds are described in vol. II, pp. 219–48, by John Cassin, with six colored illustrations.

PERSICO, IGNAZIO DA.
1728. I Canarini. *8vo. pp. 34. 1 fig. several vignettes.* *Verona.*
Poem in praise of the canary, which the author wrote for a friend, describing his method (illustrated) of teaching canaries vocal music by means of his flute. Very rare.

PERTHSHIRE NATURAL HISTORY MUSEUM. *Perth, Scotland.*
1902–13? Report.

PERTHSHIRE SOCIETY OF NATURAL SCIENCE.
1869–70. Proceedings.
1871–80. Proceedings. In Scottish Naturalist.
1880–6. Proceedings and Transactions.
1886–*date*. Proceedings and Transactions. New series.

PETÉNYI, SALAMON JANOS VON [1799–1855].
1905. Ornithologische Fragmente. *4to. pp. 36+400. 4 col. pl. text-figs.* *Gera-Untermhaus.*
An interesting biography, with incidental chapters on Hungarian and South European ornithology, by a famous ornithologist. A presentation copy from the translator.

PETERS, J. L. **1928.** *See* BANGS, OUTRAM.

PETERS, MADISON CLINTON [1859–].
1901. The birds of the Bible. *12mo. pp. 119. T. of c.* *New York.*
A meagre study of this subject—in sermons. Only seven birds are considered.

PETERS, WILHELM CARL HARTWIG [1815–83].
1852–82. Naturwissenschaftliche Reise nach Mosambique . . . in 1842–48. *4to.* *Berlin.*
An important scientific expedition, the mammals collected being described in one of six published parts, with *pp. 16+202*, and *46 col. pl.*; the amphibia (part 3) *pp. 15+191, 32 col. pl.*; and the fishes (part 4) *pp. 12+116, 20 pl.*

1869–79. *See* DECKEN, C. C. VON DER.

1873–4. *See* HARTLAUB AND LINDEMAN, *eds.*

1874. Säugethiere und Fische [of the Polar regions]. *8vo.* *Bremen.*

PETERSEN, SEVERIN.
1890. Vore Sangfugle. 2nd gjennemsete Oplag. *12mo. pp. 4+210. 30 text-figs. index.* *Kjøbenhavn.*
Second Danish edition (first in 1878) of a popular work on song-birds.

PETHERICK, J. and B. H.
1869. Travels in Central Africa. *2 vols. 8vo. illust.* *London.*
In the appendix A. Günther describes the fishes of the Nile and its tributaries.

PETIT, NICHOLAS MARTIN.
1811. Voyages de découvertes aux terres Australes; atlas par C. A. Lesueur [and others]. *2 vols. folio.* *Paris.*
The first edition of an important zoological treatise; the second was published in 1824.

PETITCLERC, PAUL.
1925. Note d'ornithologie; remarques et observations sur l'habitat, les mœurs, la migration, etc. de la Bécassine double (Gallinago media Frisch, 1763). *8vo. pp. 87+2. 3 pl.* *Paris.*

PETIT-THOUARS, DU. *See* DUPETIT-THOUARS.

PETIVER, JAMES C. [1658–1718].
1764. Opera, historiam naturalem spectantia; or, Gazophylacium. *3 vols. 8vo and folio. illust.* *London.*
This work is known as Petiver's *Gazophylacium*. The cover-title is simply 'Petiver'. The figures of plants and shells and birds are mingled together on the same plates. A memorandum states that 'Petiver, some time before his death, was offered, by Sir Hans Sloane, £4,000 for his museum; the contents of which are preserved in his works. He was one of the very few, after the Tradescants, who made any considerable collection; and such was his zeal for his favourite study, that he engaged, at a considerable expense, the Captains and Surgeons of ships to bring him specimens from abroad'.

PETREL, THE. An illustrated Monthly Magazine devoted to Ornithology and Oology. Edited by John William Martin.

1901. Vol. No. 1, Jan. *pp. 16. illust. T. of c.* (All pub.) *Palestine, Oregon.*

Among the contributors of this short-lived journal was the veteran Canadian ornithologist, Wm. L. Kells; also Jas. J. Carroll, R. Nicholas, and others, who furnished articles, which though popular are not without scientific interest.

PETRINI, P. G. V. **1755.** *See* HALLER, A.

PETRI VON HARTENFELSS, GEORG CHRISTOPH [1633–1718].

1715. Elephantographia curiosa; seu, Elephanti descriptio. *8vo. pp. [30]+284. 26 pl. Erfordiae.*

PETS AND ANIMALS. *Springfield, O.* **1904.**

PETTIGREW, JAMES BELL [1834–1908].

[1867]. On the mechanical appliances by which flight is attained in the animal kingdom. (*Tr. Linnean Society,* vol. XXVI.) *4to. pp. 197–277. 4 pl. 19 figs.* *London.*

1871. On the physiology of wings. (*Tr. Royal Society, Edinburgh,* vol. XXVI.) *4to. pp. iv+321–446. pl. (2 col.). 73 figs.* *Edinburgh.*

1874. Animal locomotion; or, Walking, swimming, and flying. *8vo. pp. xiii+264. 2 pl. 130 figs. index.* *New York.*

A volume of the *International Scientific Series,* a fourth edition appearing in 1891.

1887. La locomotion chez les animaux . . . suivie d'une dissertation sur l'aéronautique. *pp. 360. 131 figs.* *Paris.*

A French translation of the original English work on animal locomotion, the first printing of which was published in 1873.

1891. Animal locomotion; or, Walking, swimming, and flying, with a dissertation on aëronautics. 4th ed. An identical reprint of the 1874 issue. *London.*

PEYER, JOHANN CONRAD [1653–1712].

1685. Merycologia sive de ruminantibus et ruminatione commentarius. *4to. pp. 288. 6 pl.* *Berolini.*

This is the first modern treatise on the digestion apparatus of the ruminantia. [O. 3666.]

PFEFFER, GEORG JOHANN [1854–].

1891–1901. *See* STUHLMANN, F. L.

1893–1930. *See* DEUTSCH-OST-AFRIKA.

1896. Die Fische Ost-Afrikas. *4to. pp. 18+72.* *Berlin.*

PFENNINGSTORFF, FRITZ.

1921–2. Unser Hausgeflügel; ein ausführliches Handbuch über Zucht, Haltung und Pflege unseres Hausgelflugels. 4th ed. *2 vols. 8vo. indexes.* Vol. I, *pp. viii+424. 59 pl. (col.). 187 figs.* Vol. II, *pp. viii+432. 5 pl. (col.). 304 figs.* *Berlin.*

PHILADELPHIA. ACADEMY OF NATURAL SCIENCES. *See* ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA.

PHILADELPHIA MUSEUM, or Register of Natural History and the Arts. 1824. *Philadelphia.*

PHILES, MANUEL [1275–1340].

1730. Phile de animalium proprietate, ex prima editione Arsenii et libro Oxoniensi restitutus a Joanne Cornelio de Pauw, cum ejusdem animadversionibus et versione Latina Gregorii Bersinanni. Accedunt ex eodem libro Oxoniensi non pauca hactenus inedita. *8vo. pp. xv+350. index.* *Trajecti ad Rhenum.*

One of the few editions (either in MS. or print) of Philes' poems descriptive of birds and other animals. The text of the Greek writer's Περι Ζωων ἰδιοτητος is given, with Latin paraphrases in parallel columns. Elaborate footnotes are furnished by the editor, J. C. de Pauw.

PHILLIP, ARTHUR [1738–1814].

1789. The voyage of Governor Phillip to Botany Bay; with an account of the establishment of the colonies of Port Jackson & Norfolk Island. *4to. pp. 10+298+74. 55 pl. (19 birds). 7 maps and charts (fold.). append.* *London.*

There were at least three English and several French and German editions of this important voyage—well known to informed naturalists.

PHILIPPI, RUDOLF AMANDUS [1808–1904].

1860. Reise durch die wueste Atacama (Chile) . . . im 1853–54. *4to. pp. 192. 27 pl. (7 col.). map.* *Halle.*

1868. Catálogo de las aves chilenas existentes en el Museo nacional de Santiago. *4to. pp. 100.* *Santiago de Chile.*

PHILLIPS, E. CAMBRIDGE.

1899. The birds of Breconshire. *8vo. pp. xxi+168. 1 pl. addend. index.* *Brecon.*

The second edition, the first having been issued in 1881–2.

PHILLIPS, ETHELBERT LORT.

1896. On birds observed in the Goolis Mountains in northern Somali-land. *8vo. pp. 27. front. (col.).* *London.*

Author's reprint, with additions, from *Ibis,* Jan. 1896. The present copy is a gift from the author to Philip Lutley Sclater.

PHILLIPS, JOHN [1800–74].

1841. Figures and descriptions of the palaeozoic fossils of Cornwall, Devon, and West Somerset. *8vo. pp. 12+231. pl.* *London.*

PHILLIPS, JOHN CHARLES [1876–] and **CASTLE,** W. E.

1911. On Germinal Transplantation in Vertebrates. *8vo. pp. 26. 2 pl.* *Washington.*

1914. Piebald Rats and Selection. *8vo. pp. 56. 3 pl.* *Washington.*

1922–6. A natural history of the ducks, with plates in color and in black and white from drawings by Frank W. Benson, Allan Brooks and Louis Agassiz Fuertes. *4 vols. 4to.* Vol. I, *pp. x+264. front. (col.). 17 pl. (8 col.). 27 maps (1 fold.). T. of c.* Vol. II, *pp. xii+409. front. (col.). 25 pl. (19 col.). 38 maps (6 fold.). T. of c.* Vol. III, *pp. ix+383. front. (col.). 25 pl. (20 col.). 30 maps (4 fold.). T. of c.* Vol. IV, *pp. ix+489. front. (col.). 31 pl. (23 col.). 23 maps (8 fold.). bibliogr. index.* *Boston.*

This rare work stands in the front rank of modern illustrated monographs. It is an exhaustive account of the ducks of the world, with synonymy, description, distribution, and characteristic habits, etc. of each species. A useful and lengthy bibliography is added in vol. iv, pp. 321–447. The colored illustrations are also very fine, and the great number of distributional maps are quite a feature of the work.

****** and LINCOLN,** FREDERICK C.
1930. American Waterfowl. Their Present Situation and the Outlook for their future. *8vo. pp. 16 +312. 7 pl. 7 maps. index. Cambridge, Mass.*
The best treatise on the subject yet published. The authors favor private gun clubs and wild life refuges, such as our National Parks system, as the best method of conserving wildfowl, and they condemn the useless drainage of unproductive marshlands, and commercialized, semi-public organizations for the shooting of game as the chief causes of extermination of water birds.

PHILLIPS, RUTH LAURA [1882–].
1925. A text-book of vertebrate embryology, treated from the comparative standpoint. *8vo. pp. xii+302. 137 figs. index. Philadelphia.*

PHILLOTT, DOUGLAS CRAVEN [1860–].
1908. Bāz-Nāma Yi Nāsirī. A Persian Treatise on Falconry. *4to. pp. 145. 25 pl. London.*
This modern contribution to the extensive literature of the subject is a translation by a well-known authority, Taymur Mirza, a Persian prince. It was composed in A.H. 1285 (A.D. 1868) and several lithograms of it have been published in Teheran and in India. An important item in the treatise, which is profusely illustrated with figures of birds and hunting scenes, lies in the description of Persian accipitres, with their English names.

PHILOSOPHICAL INSTITUTE OF CANTERBURY, CHRISTCHURCH, NEW ZEALAND.
1909. The subantarctic islands of New Zealand. *See* CHILTON, CHAS.

PHILOSOPHICAL TRANSACTIONS. *See* ROYAL SOCIETY OF LONDON.

PHIPSON, EMMA.
1883. The animal-lore of Shakspeare's time, including quadrupeds, birds, reptiles, fish and insects. *8vo. pp. xvi+476. index. London.*

PHISALIX-PICOT, *Mme* MARIE [1861–1922].
1922. Animaux venimeux et venins. *2 vols. 4to. illust. pl. Paris.*

PHYSIOLOGICAL ZOÖLOGY. (Periodical.)
1928–30. Managing editor, Chas. Manning Child, Chicago.

PHYSIOLOGUS. *See* DIALOGUS CREATURARUM, 1923; *also* VAN LEU, PETER.

PICHOT, PIERRE AMÉDÉE [1841–1917].
1873. Le Jardin d'Acclimatation illustré, Animaux et Plantes . . . Avec une préface par M. A. Geoffroy-Saint-Hilaire, etc. *8vo. pp. 8+336. 40 col. pl. figs. in text. Paris.*
A descriptive catalogue of the plants and animals in a famous zoological collection.

PICKEREL (*pseud.*).
1881. The Migration of Birds on Our British Coasts. Reprinted from the *Falkirk Express. 12mo. pp. 16. Falkirk.*
This small but interesting pamphlet (repaged and separately entitled) is from the library of J. A. Harvie-Brown. It must be very rare as it is not mentioned in the *Nat. Hist. Br. Mus. Cat.*

PICTET, FRANÇOIS JULES [1809–72].
1853–7. Traité de paléontologie. 2nd ed. *4 vols., 8vo, and atlas, folio. illust. Paris.*

PICTORIUS, GEORG [b. 1500].
1560. ΖΩΟΤΡΟΦΕΙΟΝ, seu, Leporarium. *See* CONSTANTINUS, AFRICANUS.

PIDGEON, EDWARD.
1827–35. The animal kingdom. *See* CUVIER, G. L. C. F. D.

PIDSLEY, WILLIAM E. H.
1891. The (287) birds of Devonshire. *8vo. pp. xxx+194. front. (col.). map. index. London.*

PIERQUIN DE GEMBLOUX, CLAUDE CHARLES [1798–1863].
1844. Idiomologie des animaux. *8vo. pp. 4+156. Paris.*
A rare and classic essay on sound production, calls, and speech of birds and other animals. It is divided into and probably was issued in five parts.

PIÉTREMENT, CHARLES ALEXANDRE.
1883. (Les) chevaux dans les temps préhistoriques et historiques. *8vo. pp. 20+776. Paris.*
Contains a chapter on the presence of dogs in America before its discovery.

PIETSCH, J.
1888. Herleitung und Aussprache der wissenschaftlichen Namen in dem E. F. von Hofmeyer'schen Verzeichnisse der Vögel Deutschlands. *8vo. pp. 6+57. Wien.*

PIGOTT, THOMAS DIGBY [1840–].
1892. London birds and other sketches. *8vo. pp. 8+168. 18 figs. 3 append. London.*
The first edition was issued in 1884; another in 1902.

PIKE, OLIVER GREGORY.
[1900]. In bird-land with field-glass and camera. *12mo. pp. xvi+280. front. 82 figs. London.*
Tales and photographs of birds and their nests in their natural surroundings. A book typical of this popular writer's work.

1906. Home life in bird-land. *8vo. pp. 16+323. 38 pl. (4 col.). 48 figs. T. of c. London.*

1908. Behind the veil in birdland. *folio. pp. 106. 24 pl. T. of c. London.*

1910. Through birdland byways with pen and camera. *8vo. pp. x+212. 47 pl. 10 figs. index. London.*

1914. The scout's book of birds. *8vo. pp. xi+158. 40 pl. index. New York.*

1924. More stories from birdland. *8vo. pp. 106. London.*

1925. Picture stories from birdland. *8vo. pp. x+128. 50 pl. T. of c. London.*
Another edition was issued in 1928.

1929. *See* PATON, E. RICHMOND.

n.d. Bird biographies and other bird sketches. *pp. xi+180. 44 pl. 6 figs. index. London.*

n.d. Farther afield in birdland. *8vo. pp. 12+224. 60 pl. index. Toronto.*

PILLER, MATHIAS [1733–88] and **MITTERPACHER,** LUDWIG.
1783. Iter per Poseganam Sclavoniae provinciam, anno 1782. *4to. pp. 148. 16 pl. 2 col. figs. of birds. Budae.*

PIRNIE, M. D. **1927.** *See* ALLEN, A. A.

PISA. Società Toscana di Sc. Nat.
1875–1925. Atti (Processi Verbali, 34 vols.; Memorie, 35 vols.).

PISO, WILLEM [1611–78] and **MARCGRAVIUS,** G.

1648. Historia naturalis Brasiliae . . . In qua non tantum plantae et animalia, etc. *2 vols. folio. pp. 10+122+10+293+7. 510 text-figs.* *Lugdun. Batavorum.*

A very important, fundamental treatise. The part by Marcgravius has its own title-page, pagination, and index.

1658. Gulielmi Pisonis . . . De Indiæ utriusque re naturali et medica libri qvatvordecim, quorum contenta pagina sequens exhibet. *3 pts. folio. pp. 24+327+39+226. illust.* *Amsterdam.*

A well-known seventeenth-century natural history of the East and West Indies, from the Elzevir press.

PISTORIUS, G.

1799. Anleitung. zur Austopfen und Aufbewahren der Vögel. *Darmstadt.*

PITFEILD, A.

1701. Memoirs For A Natural History of Animals . . . English'd by R. W. *folio. 35 pl.* *London.*

A very rare and curious translation, not listed in the *Cat. Br. Mus. (Nat. Hist.).*

PITT, FRANCES.

1920. Wild creatures of garden and hedgerow. *8vo. pp. ix+284. 16 pl. T. of c.* *London.*

1922. Woodland creatures; being some wild life studies. *8vo. pp. 255. 24 pl. T. of c.* *London.*

[**1925**]. Waterside creatures. *8vo. pp. 252. 24 pl. T. of c.* *London.*

PIUMATI, GIOVANNI.

1893. Codice sul Volo degli Uccelli, etc. Trad. di Carlo Ravaisson-Mollien. *pp. 30.* *London.*

A facsimile and translation of a very interesting sixteenth-century manuscript on the flight of birds.

PLATE, LUDWIG HERMANN [1862–].

1913. Selektionsprinzip und Probleme der Artbildung; ein Handbuch der Darwinismus. 4th ed. *8vo. pp. 16+650. illust.* *Leipzig.*

1913. Vererbungslehre, mit besonderer Berücksichtigung des Menschen. *8vo. pp. 12+520. pl.* *Leipzig.*

PLATH, KARL. *See* ORIGINAL DRAWINGS.

PLAYFAIR, ROBERT LAMBERT [1828–99] and **GÜNTHER,** A. C. L.

1866. The fishes of Zanzibar. *4to. pp. 14+153. 21 col. pl. text-figs.* *London.*

Including a list of fishes of the East African coast. The copy in hand has several MSS. inserted, including a receipted bill from the illustrator, J. Smit.

PLESKE, THEDOR DMITRIEVICH [1858–].

1886. Übersicht der Säugethiere und Vögel der Kola-Halbinsel. *2 pts. 4to. col. illust.* Russian and German. *St. Petersbourg.*

1889–92. Ornithographia Rossica; die Vogelfauna des Russischen Reichs. *5 pts. folio.* Pt. [I], vol. II. Pt. 1, 1889, *pp. 153+2. 1 col. pl.* Pt. [II], Vol. II. Pt. 2, 1889, *pp. xviii+153 bis–320+2. 1 col. pl.* Pt. [III], vol. II. Pt. 3, 1890, *pp. xxxiii+321–431.* Pt. [IV], vol. II. Pt. 4, 1890, *pp. xl+431 (bis)–560+2. 1 col. pl.* Pt. [V], vol. II. Pt. 5, 1891, *pp. xli–liii+561–665. 1 col. pl.* *St. Petersburg.*

A monograph on the Warblers of Russia, printed in both German and Russian. No vol. I was ever issued, the first part being entitled 'Band II, Lieferung 1'. It was probably intended to bring out later a first volume devoted to some other group, but this was never done. The treatise in hand (in the original wrappers) is a presentation copy from the author to Prof. Ant. Reichenow to whose library it formerly belonged.

**** and **BIANCHI,** V. L.

1889–1905. Vogel, continued by V. L. Bianchi. Lief. 1–4. *4 vols. col. pl.* (Vol. 2, *Zoologischer Theil, Wissenschaft. Resultate der von N. M. Przewalski nach Central-Asien unternommenen Reisen.*) Russian and German in parallel cols. *St. Petersburg.*

Rare natural history treatise; not listed in *Cat. Br. Mus. (Nat. Hist.).*

**** and **ALLEN,** GLOVER M.

1928. Birds of the Eurasian Tundra. *folio. pp. 485. index.* *Boston.*

This very useful account of arctic and sub-arctic avifauna forms vol. IV, no. 3 of the *Memoirs of the Boston Society of Natural History.* The original manuscript was submitted in French and was translated and edited by Dr. Glover M. Allen although, with characteristic modesty, he suppresses any mention of that fact in the text.

PLEYEL, JOSEF VON.

n.d. Die Eingewöhnung und Pflege unserer einheimischen Sing- und Stubenvögel. *16mo. pp. 104. index.* *Wien.*

PLINIUS, CAIUS (*Secundus*) [23–79].

1469. [Incipit] Plinius secundus nouocomensis . . . Libros Naturalis Historiae, etc. *folio. 355 fol., 50 lines to a complete page. no pp. or sigs.* [O.] *Venice,* J. Spira.

The *editio princeps* (from the Osler Library) of this immortal treatise on animal life, as recognized in ancient Greco-Roman times. The McGill libraries possess many subsequent printings, translations, and excerpts (the titles of the more important given *in extenso*) from this treatise. As stated in the present *Introduction,* all the natural history works of the Second Pliny were regarded as of high authority from the days of Imperial Rome through the Middle Ages. According to Green the *Historia Naturalis* is Pliny's monument; no other work of his has survived. Since the publication of de Spira's edition 42 printings in several languages, including English, were issued before 1536. The Second Pliny may be regarded not only as the most famous but as also the most trustworthy of the ancient Roman naturalists.

1472. Naturalis historiae libri tricesimiseptimi. *pp. 357.* N. Jenson. Hain 13089. *Venetiis.*

This work (from the Osler Library) is a copy of the third edition of the book, containing a fifteenth-century initial representing Pliny offering the book to the Emperor, and was one of the most beautiful volumes produced by Jenson's Press. It also influenced to some degree the type of the Kelmscott Press, the copy in hand having belonged to the library of William Morris, and still bears his book label. It is consequently of considerable historical value.

1473. Historia naturalis. Sweynheym & Pannartz. *folio.* Hain—C. 13090. First and last leaves wanting. [O.] *Rome.*

1481. Historia naturalis. Andreas Portilia. *folio.* Hain—C.* 13094. [O.] *Parma.*

1483. Historia naturalis. *folio.* Reynaldus de Novimagio. Hain* 13095. *Venice.*

The library copy is from the Carmelite monastery of Dijon, having belonged to the poet and preacher, Laurentius Durellus, later Bishop of Sisteron. Inserted are descriptive notes by Clifford Maggs.

1511. Naturalis historiae libri XXXVII. *4to. 20+262 ff.* *Paris.*

From Dean Adams' Library.

1513. Historia Naturale, di lingua latina in fiorentina tradocta per Chr. Landino, nouamete correcta; et da infinite errori purgado. Roman Letter. With woodcut initials and woodcuts in the text. *sm. folio, double columns, title-page in red. 14+219 ff. map of Africa. index.* Printed by M. Sessa. *Venetiis.*

1518. C. Plynii Secundi Naturae historiarum libri XXXVII e castigationibus Hermolai Barbari quam emendatissime editi; additus est ad maiorem studiosorum commoditatem, index Ioannis Camertis minoritani, quo Plynius ipse totus breui mora temporis edisci potest; [ed. by J. B. Palmarius]. *index of pp. 190, with separate t.-p.* Brunet, iv. 715. *folio. pp. 286.* Thomae Anshelmi. *Hahenoae.*

1520. Naturae historiae libri XXXVII. 2nd ed. *folio. indices bound in.* Edited by H. Barbarus. *Venice.*

1525. Naturalis historiae libri XXXVII. *4to. 20+262 ff.* *Venice.*
In Dean Adams' Library.

1532. Historiarum Naturae libri XXXVII. *fol.* *Paris.*

1543. C. Plinii Secundi historiae mundi libri XXXVII ex postrema ad vetustos codices collatione cum annotationibus, et indice. *folio. pp. 36+671.* Apud Audoënum Parum. Index has a separate t.-p. without pagination. *Parisiis.*

1573. Historia naturale; tr. [from the Lat.] per Lodouico Domenichi; con le postille in margine. *8vo. pp. 1188.* G. Vidali. *Venezia.*
A rare Italian translation, not listed in the *Cat. Br. Mus.* (*Nat. Hist.*).

1584. Des weitberumbten hochgelehrten alten Philosophi unns Naturkündigers Bücher und Schriften von Natur Art und Eygenschafft aller Creaturen oder Geschöpffe Gottes, als nemlich von den Menschen [etc.]. Ebert 17322. *folio. pp. 12 +388+15. illust.* *Franckfort am Mayn.*
Rare German edition, not in *Cat. Br. Mus.* (*Nat. Hist.*).

1599. Historia Mundi. *folio.* *Frankfurt.*

1601. The Historie of the World, etc. *2 vols. in 1. folio.* Adam Islip. Tr. by P. Holland. First English edition. Also in the Osler Library.

1615. Historia Mundi. *folio.*

1622. Histoire du Monde. Trad. par Du Pinet. *2 vols. in 1. folio.* *Paris.*

1634–5. The Historie of the World. 2nd ed. *2 vols. in 1. folio.* Adam Islip. *London.*

1635. Historiae naturalis libri XXXVII. Elzevir Press. *2 vols. 12mo.* *Lugd. Bat.*

1651. Caii Plinii Secundi desz weitberrühmbten hochgelehrten Philosophi und Naturkundigers Bücher und Schriften von Natur Art und Eigenschafft aller Creaturen oder Geschöpffe Gottes. [hrsg. von Johannes Heyden von Dhaun]. *8vo. pp. 16+604+20. illust.* A. Hammen. *Franckfurt.*

1657. Des wijdt-vermaerden natuurkondigers vijf boecken, handelende v. de nature, v. de menschen, v. de vogeln, visschen, viervoetige en kruypende dieren. *front. and num. engravings.* *Amsterdam.*
A Dutch edition of the famous *Historia Naturalis.*

1778–91. Naturalis Historia. Ed. J. G. F. Franzius. *10 vols. 8vo.* *Lipziae.*

1783–4. Caii Plinii Secundi Historiae naturalis libri XXXVII ex recensione Joannis Harduini praemittitur notitia literaria accedit index Studiis societatis Bipontinae. *5 vols. 8vo.* *Biponti.*
This is a copy of the *Deux Ponts* edition of Pliny's *Natural History.*

1785–1910. Collections of about 100 monographs in several languages—most of them rare and out of print—on the Natural History of Pliny.
Of the greatest importance and value to bibliographers and advanced students.

1802. Histoire naturelle des Animaux. Trad. par P. C. B. Gueroult. *3 vols.*

1831–6. Naturalis historia libri XXXVII. J. Sillig. *5 vols.* *Lipsiae.*

1921. *See* DANNEMANN, F.

PLISCHKE, HANS [1890–].
1926. Fernão de Magalhães; die erste Weltumseglung. 2nd ed. *8vo. pp. 158. pl. map.* *Leipzig.*
The story of the first world circumnavigator contains a number of early natural history observations.

PLÖN. Biologische Station.
1905–12. Forschungsberichte; von Otto Zacharias. *20 vols. 8vo.* Including Neue Folgen and Supplement. *Berlin and Stuttgart.*

PLOT, ROBERT.
1686. Natural History of Staffordshire. *folio. pp. 16+450. 37 pl.* *Oxford.*
One of the rare treatises of this English naturalist.

PLUCHE, NOËL ANTOINE [1688–1761].
1733. Spectacle de la nature; or, Nature display'd; being discourses on such particulars of natural history as were thought most proper to excite the curiosity, and form the minds of youth. *2 vols. 12mo.* Pt. I, *pp. xvi+279. 13 pl.* Pt. II, *pp. 300+(16). 8 pl. index.* *London.*
A general pre-Linnean natural history of considerable merit; in two parts, and written in dialogues. Numerous editions were issued, the fourth in 1743, a sixth in 1744, a tenth in 1766–70. The French original in 8 vols. appeared in 1732–51.

1739–68. Spectacle de la nature, etc. *8vo. illust.* *Paris.*
Another French edition.

1740. Spectacle de la Nature; or Nature Displayed, being Discourses on Fish, Birds, etc. Edited and translated by S. Humphreys. *3 vols.* *London.*

1743–4. Spectacle de la nature: or, Nature display'd. *12mo.* *London,*
The present, sixth edition, contains three volumes only, of which vol. II contains the account of the birds, pp. 157–200, accompanied by two copper plates representing 12 species. Vol. IV appears to be of the fourth edition (1743), with the omission of the translator's name on the title-page.

1744. Spectacle de la Nature, or nature delineated, etc. Vol. III. *8vo. pp. 32+370.* Tr. from the French by John Kelly, D. Bellamy, and J. Sparrow. *London.*
From Dean Adams' Library.

1754–6. Spectacle de la Nature, etc. . . . de l'Histoire Naturelle. Vols. II–VI. *8vo. 145 pl.* *Paris.*
Still another French edition, lacking vol. I.

PLYMOUTH INSTITUTION AND DEVON AND CORNWALL NATURAL HISTORY SOCIETY. *Plymouth, Eng.*
1855–6/*date.* Annual Reports and Transactions.

1830. Transactions of the Plymouth Institution.

POCCI, Franz von.

1906. Der Fasan in Bayern; eine historische und zoologische Darstellung. *8vo. pp. 8+225. 10 col. pl. map. index.* *München.*

PO CHÜ-I [772–846] and **K'UNG CHUAN.**

n.d. T'ang Sung po k'ung liu t'ieh. Work of information, including animals, birds, butterflies, fishes, etc., chüan 94–8. *28·5×18·4 cm.* [G.]

POCOCK, Constance Innes.

1913. Highways & byways of the Zoological gardens. *8vo. pp. 12+192. illust.* *London.*

POEMS ABOUT BIRDS IN SINHALESE.

1915–25. *6 vols. 8vo.* Vols. 1–6, *pp. 600. 1 fig. (portr.).* *Ceylon.*

Contents. Vol. [1]. Nilakobo sandesaya; or, The blue pigeon's message, by Baranaganit Acharya. [2]. Wanasiwue sandesa; or, The jungle cock's message. [3]. Girasandesa; or, The parrot's message, by T. Sugatapala. [4]. Tisara sandesaya; or, The swan's message. [5]. Selalihini sandesa warnanawa; or, The blackbird's message, by Bomunuwe Saranda Thera. [6]. Selalihini sandesa, by Sangharaja Sri Rahula.

All of these poems are published by the Native Press in Ceylon. There are several others of like character, some of them centuries old, in modern type as well as in Pali script (*olas*) in the form of dialogues and other media dealing with Sinhalese Bird-Lore; and these messages are good, typical examples of native folk-lore literature.

POEPPIG, Eduard Friedrich [1798–1868].

1847–8. Illustrirte Naturgeschichte des Thierreichs. *4 vols. folio.* *Leipzig.*

Contents. Vol. 1. Säugethiere. 2. Vögel. 3. Reptilien und Fische. 4. Wirbellose Thiere.

All of these volumes have been separately published as independent treatises.

POEY Y ALOY, Felipe [1799–1891].

1851–8. Memorias sobre la historia natural de la Isla de Cuba, etc. *2 vols. 4to. 53 pl. (17 col.).* *Habana.*

One of the classic accounts of animal life in Cuba, by a well-known Spanish naturalist.

POGGESI, Ang.

1697. Della Pisana Caccia Libri II. *Pisa.*

A very rare book on hunting, with a description of animal life.

POLEHAMPTON, Edward and **GOOD,** J. M.

1821. The gallery of nature and art; or, A tour through creation and science. *6 vols. 8vo. illust.* *London.*

POLLARD, Alfred W.

1908–13. Catalogue of Books printed in the 15th Century now in the British Museum. Pts. I–III. *folio.* *London.*

All of this noted bibliographer's works are valuable for a study of vertebrate zoology.

1926. Early Illustrated Books. *8vo.* *London.*

A handy and useful little treatise by a well-known bibliographer.

******** and **REDGRAVE,** G. R.

1926. Books printed in England, Scotland, and Ireland, and English Books printed Abroad, 1475–1640. *8vo. pp. 16+609.* *London.*

'This book, which marks an epoch in the history of English bibliography, forms an indispensable work of reference to librarians, book-collectors and owners of libraries, bibliographers, students of English literature, as by its use, for one thing, consultation of an enormous number of other books will be rendered unnecessary. It contains entries of over 26,000 different books in their various editions.' [O. 7676.]

POLLARD, Evelyn H.

1900. The birds of my parish. *12mo. pp. xiii+294. 6 pl.* *London.*

POLLARD, Hugh B. C.

1928. Wildfowl and Waders: Nature and Sport in the Coastlands. *4to. 64 pl. (16 col.).* *London.*

POLLEN, François P. L. and **DAM,** D. C. van [–1886].

1868–77. Recherches sur la Faune de Madagascar. Vols. 1–5 (all pub.). *4to. col. pl.* *Leyden.*

A rare and important series, vol. 3 of which was (?) unpublished. H. Schlegel and F. P. L. Pollen described the mammals and birds; P. Bleeker the fishes.

POLLICHIA. *Dürkheim.*

1843–1922. Mitteilungen. (All pub.)

1843–54. As Jahresbericht der Pollichia eines Naturwissen. Verein d. Bayer. Pfalz.

1920–2. Mitteilungen. New series.

PONTING, Herbert George.

[1926]. The great white South; or, With Scott in the Antarctic; being an account of experiences with Captain Scott's South pole expedition and of the nature life of the Antarctic. *8vo. pp. xxvi+306. front. 76 pl. 1 map. T. of c.* *London.*

A most interesting account of a thrilling adventure. Birds are treated mostly on pp. 217–60 accompanied by 19 plates representing 41 figures. The first edition was published in 1921, the present one being the seventh impression.

PONTOPPIDAN, Erik Ludvigsen [1698–1764].

1755. The Natural History of Norway. Tr. from the original Danish. *2 pts. folio.* *Lond.*

The author, Bishop of Bergen, published the first edition of this important work at Copenhagen before 1753, when a German translation was also made.

1766–7. Daenischer Atlas oder Beschreibung des Daennemark, etc. *2 vols.* *Kopenhagen.*

German translation from the Danish by J. A. Scheibe. The first volume contains the zoology.

POPE, Alexander [1849–] and **INGERSOLL,** Ernest.

1878. Upland game birds and water fowl of the United States. *folio. pp. (2)+(40). 20 pl. (col.).* *New York.*

A series of mounted chromolithographs (in portfolio) by the author accompanied by brief accounts of each species which, according to Coues, were written by Ernest Ingersoll. The work was issued in ten parts, each with two plates and corresponding text. The copy recorded by Coues appears to have the copyright dated 1877 for the first part, and 1878 for the remainder.

POPE, W. H.

1905. Wild-fowl. *See* shaw, l. h. de v.

POPULAR BULLETINS.

1908–14. Edited by Dr. A. Haagner, Pretoria, Transvaal. Issued by the S. African Ornith. Union. *See* journal south afr. ornith. union, *also* bulletin series.

PORTA, Johannes Baptista [1545–1615].

1591. Phytognomonica . . . octo libris contenta etc. *8vo. pp. 16+552. illust.* *Francofurti.*

A curious attempt by a celebrated Neopolitan oculist to find parallels (in form especially) between various species of the animal and vegetable kingdoms. There are several editions, the first issued in Naples, 1588.

POPULAR SCIENCE REVIEW. 1861–81. *London.*

PORTER, *Mrs.* GENE STRATTON [1868–1924].
[1907]. What I have done with birds. *8vo. pp. (xxii)+257. 42 pl. (16 col.). 66 figs. Indianapolis.*
The title is sufficiently explanatory. Unfortunately the work is decidedly full of errors, as pointed out in margin notes by the one-time owner of the present volume. Inserted is an autographed letter from the author to the said owner, in reply to his letter regarding these errors.

1909. Birds of the Bible. *8vo. pp. 467. 81 pl. 7 figs. 1 map (col.). Cincinnati.*

1910. Music of the wild, with reproductions of the performers, their instruments and festival halls. *8vo. pp. 426. illust. London.*

[1912]. The song of the cardinal. *8vo. pp. (6)+136. 4 figs. Indianapolis.*

1919. Homing with the birds; the history of a lifetime of personal experience with the birds. *8vo. pp. xv+381. front. 83 figs. index. Toronto.*

1925. Tales you won't believe [about birds and flowers]. *8vo. pp. ix+327. 24 pl. Garden City, N.Y.*

PORTER, ROSE [1843–1906].
1897. A charm of birds [poems]. *12mo. pp. 206. New York.*
An avian anthology from Shakespeare to Whittier.

PORTICI. Laboratorio di Zoologia Generale e Agraria.
1905–*date.* Bollettino.

PORTIS, ALESSANDRO [1853–].
1884–7. Contribuzioni alla Ornitologia Italiana. *4to. pp. 26. 2 pl. Torino.*

PORTLAND SOCIETY OF NATURAL HISTORY. *Portland, Me.*
1846. Journal.
1862–*date.* Proceedings.
1880–9. Proceedings.

PORTLOCK, NATHANIEL [1748?–1814].
1789. (A) Voyage round the World; but more particularly to the north-west coast of America . . . in 1785–88 in the King George and Queen Charlotte. *4to. pp. 384+40. 19 pl. 1 map. London.*

PORTO RICO AND VIRGIN ISLANDS, SURVEY.
1927–*date.* Scientific Survey of Porto Rico. *New York.*
At the end of 1930, 31 parts of this monumental review of the natural history (including all the vertebrates) of the U.S. possessions in the West Indies, conducted by the N.Y. Academy of Sciences and the Government of Porto Rico, have appeared. These publications include documents on mammalogy and the other vertebrate classes.

PORTUGALIA. *Oporto.*
1899–1908. Continues Revista de Sciencias Naturaes e Socieas.

POSTGATE, ISABELLA J.
1914. Song & wings, a posy of bird poems for young and old. *8vo. pp. x+50. 14 pl. (col.). T. of c. London.*
A second edition was issued in 1922.

POTOMAC-SIDE NATURALISTS' CLUB.
See FIELD AND FOREST.

POTTER, THOMAS ROSSELL [1799–1873].
1842. The history and antiquities of Charnwood Forest. *4to. pp. 8+192+80. illust. London.*

POUCHET, HENRI CHARLES GEORGES [1833–94].
1894. *See* JAN-MAYEN.

POULTON, EDWARD BAGNALL [1856–].
1890. Colours of animals, their meaning and use. *8vo. pp. xiii+360. 1 pl. (col.). 66 figs. index. New York.*

POWYS, THOS. L. *See* LILFORD, LORD.

POYNTING, FRANK [1848–97].
1895–6. Eggs of British birds, with an account of their breeding-habits. *Limicolæ. 4to. pp. xvi+(254). 54 pl. (col.). bibliogr. index. London.*
The work was abandoned, owing to the death of the author, after the first four parts had appeared.

PRACE ZOOLOGICZNE.
1922–4. Polskiego Państwowego Museum Przyrodniczego. Tom I, II, III No. 1. 2. *Warszawa.*

PRACTICAL NATURALIST. *London.* 1883?

PRAGUE. Státní Hvězdárně. Zoologický Ustav.
1915? Sborník Zoologický.

PRAKTISCHE GEFLÜGEL-, KANINCHEN-, FISCH- UND BIENEN ZÜCHTER.
1879. *Vienna.*

PRAKTISCHE GEFLÜGEL- UND KLEINVIEHWIRTSCHAFT. 1919–*date.* *Frankfurt-a-O.*

PRAKTISCHE GEFLÜGELZÜCHTER, DER. Zeitschrift f. Geflügelzucht und Vogelschutz.
1881. *Hamelin.*

PRATJE, ANDRE.
1923. Das Leuchten der Organismen eine Übersicht über die neuere Literatur. *4to. pp. 109. illust. München.*

PRATT, ANNE [1806–93]. *See* PEARLESS, *Mrs.* ANNE (born PRATT).

PRATT, ANTWERP E.
1892. To the Snows of Tibet through China. *8vo. pp. 18+268. 30 pl. 1 map. illust. text. London.*
In the appendixes a list of Chinese birds is given; while A. Günther describes the reptiles and fishes (among them new species) collected during the expedition.

PRATT, SAMUEL JACKSON [1749–1814].
1798. Pity's gift; a collection of interesting tales to excite the compassion of youth for the animal creation. 2nd ed. *8vo. pp. viii+147. 15 pl. T. of c. London.*

PRATTEN, HENRY. 1852. *See* UNITED STATES. GEOLOG. SURVEY, WISCONSIN, etc., 1852.

PRAY, LEON LUTHER [1882–].
1913. Taxidermy. *12mo. pp. 113. 44 figs. T. of c. New York.*

PRAŽÁK, J. P.
1897. Ueber die Vergangenheit und Gegenwart der Ornithologie in Böhmen. *8vo. pp. 86.* *Gera.*
A contribution to the history of Bohemian ornithology with a complete bibliography of the literature to date. The volume in hand is a presentation copy from the writer to Prof. A. Reichenow, from whose library it was secured.

PREBLE, EDWARD ALEXANDER [1871–].
1908. A biological investigation of the Athabaska-Mackenzie region. *8vo. pp. 574.* *Washington.*
A separate volume of *North American Fauna*, No. 27, treating the Zoology of an important area of the Canadian Northwest.

PRENTIS, WALTER.
1894. Notes on the birds of Rainham including the district between Chatham and Sittingbourne. *8vo. pp. 92. index.* *London.*

PRENTISS, DANIEL WEBSTER [1843–96] and **COUES,** E.
1883. Avifauna Columbiana. *See* COUES, E. and PRENTISS, D. W.

PRESSBURG. Verein f. Naturkunde.
1856–66. Verhandlungen. Vols. 1–9.

PRETORIA.
1908–*date.* Annals of the Transvaal Museum.

(K.) PREUSSICHE AKADEMIE DER WISSENSCHAFTEN. *Berlin.*
1804–1907. Abhandlungen.

1908–*date.* Abhandlungen (Physikalisch-mathematische klasse).

1836–55. Bericht.

1808–24. Denkschriften.

1882–97. Mathematische und naturwissenschaftliche mitteilungen.

1786–1804. Mémoires.

1856–81. Monatsberichte.

1770–86. Nouveaux Mémoires.

1882–1921. Sitzungsberichte.

1922–*date.* Sitzungsberichte (Physikalisch-mathematische klasse).
About one-half the above are in the McGill libraries.

PRÉVOST, FLORENT.
1838–43? *See* KNIP, *Mme* PAULINE.

****** and DES MURS,** M. A. P. E.
1840–64. *See* VOYAGES FRENCH, AUTOUR DU MONDE SUR . . . LA VÉNUS.

1847–51. [Mammals of Abyssinia.] *See* VOYAGES, FRENCH, EN ABYSSINIE.
An important contribution to African mammalogy.

****** and LEMAIRE,** C. L.
[1879]. Histoire naturelle des oiseaux exotiques. 3rd ed. *8vo. pp. 168. 80 col. pl.* *Paris.*

PREYER, THIERRY WILLIAM [1841–97]. **1882.** *See* BLAKISTON and PREYER.

PRICE, JOHN B.
1931. Familiar Birds of the Stanford Campus. *12mo. pp. 8+71. front.*
Stanford University, California.
A well-written, popular guide to local birds, with a useful descriptive key.

PRICHARD, JAMES COWLES [1786–1848].
1855. The natural history of man. *2 vols. 8vo. pp. 677. col. pl. text-figs.* *London.*

PRIEST, CECIL D.
1929. A guide to the birds of southern Rhodesia and a record of their nesting habits. *8vo. pp. xix+233. 15 pl. (14 col.). 111 figs. glossary. index.* *London.*

PRINCE, E. E.
1893. A great Scottish Naturalist (Prof. McIntosh). *Leeds.*

PRINCETON UNIVERSITY BIRD CLUB.
See BIRD CLUB OF PRINCETON UNIVERSITY.

PRINCETON UNIVERSITY EXPEDITIONS TO PATAGONIA, 1896–9.
1904–12. Reports of the Princeton university expeditions to Patagonia, 1896–1899. *See* SCOTT W. B.

PRITCHARD, E.
1895. Movement. *See* MAREY, ÉTIENNE JULES.

PROCEEDINGS OF THE AGASSIZ INSTITUTE. 1872–3. *See* AGASSIZ INSTITUTE.

PROCEEDINGS OF THE BELFAST NATURAL HISTORY AND PHILOSOPHICAL SOCIETY. 1871–*date.* *See* BELFAST.

PROCEEDINGS OF THE BERWICKSHIRE NATURALISTS' CLUB. 1831–*date.* *See* BERWICKSHIRE NATURALISTS' CLUB.

PROCEEDINGS OF THE BIOLOGICAL SOCIETY OF WASHINGTON.
1880–*date.* Index: 1–35.

PROCEEDINGS OF THE BIRMINGHAM NATURAL HISTORY AND MICROSCOPICAL SOCIETY. 1869–72. *See also* ANNUAL REPORTS.
Society founded in 1858 but in 1894 it was amalgamated with the *Birmingham Philosophical Society* to form the *Birmingham Natural History and Philosophical Society.*

PROCEEDINGS OF THE BRISTOL NATURALISTS' SOCIETY, ENGLAND. 1863–*date.*

PROCEEDINGS OF THE CLEVELAND ACADEMY OF NATURAL SCIENCES. 1849–59.

PROCEEDINGS OF THE DAVENPORT ACADEMY OF NATURAL SCIENCES. 1867–*date.* *See* DAVENPORT.

PROCEEDINGS OF THE DELAWARE VALLEY ORNITHOLOGICAL CLUB OF PHILADELPHIA.
Years **1890, 1891.** *pp. 13.* Years **1892–7.** *pp. 42. index. illust.* Years **1898, 1899.** *pp. 28. index.* Year **1900.** *pp. 16. index.*
Counting each 'Year' as a 'number' these four (abstracted) reports are forerunners of *Cassinia* (q.v.) that begins with No. V (I), 1901.

PROCEEDINGS OF THE DORSET NATURAL HISTORY AND ANTIQUARIAN FIELD CLUB.
1877–*date.* Index 1–41. *See* DORSET.

PROCEEDINGS OF THE ELLIOTT SOCIETY OF NATURAL HISTORY OF CHARLESTON AND SOUTH CAROLINA.
1853–90. (All pub.) *See* ELLIOTT SOCIETY, etc.

PROCEEDINGS OF THE FOLKESTONE NATURAL HISTORY SOCIETY. 1884–*date*.
See FOLKESTONE . . . SOCIETY.

PROCEEDINGS OF THE INTERNATIONAL ORNITHOLOGICAL CONGRESS. *See* ORNIS.

PROCEEDINGS OF THE NEBRASKA ORNITHOLOGICAL UNION.
1899–1930. Irregular. *8vo. illust. Lincoln, Neb.*
A number of useful papers have been presented by field observers of repute at the meetings of this Union.

PROCEEDINGS OF THE NEW ENGLAND ZOOLOGICAL CLUB. 1900–30.

PROCEEDINGS OF THE NEWPORT NATURAL HISTORY SOCIETY. 1883–99.

PROCEEDINGS OF THE ORNITHOLOGICAL SUB-SECTION OF THE BIOLOGICAL SECTION OF THE CANADIAN INSTITUTE.
The following data were kindly furnished by Mr. J. H. Fleming, Toronto:
(I). **1889.** Including the Meeting for Organization, Dec. 28, 1888. *pp. 25.*
(II). **1890.** Jan., Feb., and March. *pp. 25.*
(III). **1890–1.** *pp. 27–89.* (Pagination from *Trans. of the Canadian Institute.*)
The *Proceedings* were then merged in and succeeded by the *Biological Review of Ontario.*
These publications contain a number of valuable papers on Canadian and other North American avifauna.

PROCEEDINGS OF THE SOCIETY FOR THE PROTECTION OF BIRDS. *See* ROYAL SOCIETY FOR THE PROTECTION OF BIRDS. Annual report . . . with Proceedings of the Annual meeting.

PROCEEDINGS OF THE SOUTH LONDON ENTOMOLOGICAL AND NATURAL HISTORY SOCIETY.
1907–25. *8vo. col. pl.* *London.*

PROCTOR, RICHARD ANTHONY [1837–88] and **others.**
1882. Nature studies. New ed. *8vo. pp. [6]+342. 12 pl. T. of c.* *London.*

PROTHEROE, ERNEST.
n.d. New illustrated natural history of the world. *8vo. pp. 20+564. 24 pl. (col.). 291 figs. index.* *London.*
Written to replace the Rev. J. G. Wood's *Popular Natural History.*

PROTOCOLL D. VERSAMMLUNGEN MECKLENBURGISCHER ORNITHOLOGEN.
1860–2. 1–3. *8vo.*
This is the only reference known to the Compiler and is found in the *Cat. Lib. Harvard University, Scientific Serials,* 1876.

PROVANCHER, LÉON, *Abbé* [1820–92].
1874. Les oiseaux du Canada, clef systématique pour l'identification des ordres, sous-ordres, tribus, familles, genres et espèces. *8vo. pp. (4)+26. vignette. 1 fig.* *Québec.*
Key to the birds of Canada by the well-known French-Canadian naturalist. Two hundred and forty-five species are listed.

1874. Les oiseaux insectivores et les arbres d'ornement et forestiers. *8vo. pp. 30. 1 pl. 4 figs.* *Québec.*
A brief discussion of some beneficial birds of Quebec, with a plea for their protection.

PROVINCE OF QUEBEC. Society for the Protection of Birds.
1917. The message of the rossignol. *18mo. pp. 18. 7 figs. (1 col.).* *Montreal.*
This tractate sets forth the aims and objects of the Society, founded January 4, 1917 The cover bears a colored figure of a Song Sparrow, the emblem of the Society.

PROVINCIAAL UTRECHTSCH GENOOTSCH. VAN KUNSTEN EN WETENSCHAPPEN.
1845–1921. Aanteekeningen.
1862–70. Natuurkundige Verhandelingen.
1822–54. Nieuwe Verhandelingen.
1781–1821. Verhandelingen.

PRUSSIA. *See* MARTENS, EDUARD C., 1867–76.

PRÜTZ, GUSTAZ and **DIETZ,** H.
1883. Die Tümmler- und Purzlertauben. *See* DIETZ, H. and PRÜTZ, G.

1887. Illustrirtes Mustertauben-Buch; enthaltend das Gesammte der Taubenzucht. *2 vols. in 1. 4to. pp. 7+438. 81 col. pl. T. of c.* *Hamburg.*
The most complete and best illustrated of all the works on domestic pigeons, their varieties and culture. The work seems to be quite scarce.

PRZIBRAM, HANS [1874–].
1907–13. Experimental-Zoologie. *4 vols. to date. 8vo. illust.* *Leipzig and Wien.*
One of the best and most modern of treatises on this important subject.

PTIZEWODNOE, etc. [In Russian.] Title in German, Journal für Vogelzucht.
Herausgegeben von der Kaiserl. Russischen Gesellschaft für Vogelzucht. Redigirt von d. Chalturin. *4to.*
1898–1916. (All pub.?) *Moscow.*

PTIZEWODSTWO, etc. (Wochenschrift für Vogelzucht.) Weekly. In Russian. *4to.*
The following brief notes from *Naturae Novitates*: Jahrg. 1898. 52 nos.–Jahrg. 1915. 52 nos. (All pub.?) *Moscow.*

PUBLICATIONS OF ACADEMY OF SCIENCES, PASADENA. 1897–8. *See* ACADEMY OF SCIENCES, PASADENA.

PUBLICATIONS OF THE FIELD MUSEUM OF NATURAL HISTORY, CHICAGO. 1894–*date*. *See* FIELD MUSEUM, etc.

PUBLICATIONS OF LYNN NATURAL HISTORY SOCIETY. *See* LYNN NATURAL HISTORY SOCIETY.

PUBLICATIONS OF McGILL UNIVERSITY. *See* CANADA MCGILL UNIVERSITY, PUBLICATIONS.

PUBLIC SCHOOL SERIES.
n.d. Nature in New Zealand. *See* DRUMMOND, J.

PUBLIKATIONER. Copenhagen Universitat, Zoologiske Museum. 1917–*date*. *See* COPENHAGEN.

PUCHERAN, JACQUES [1817–94]. *See* VOYAGE AU PÔLE SUD, 1841–54.

PUJOULX, JEAN BAPTISTE [1762–1821].
An. XIII–**1805.** Le Naturaliste du Second Âge, ouvrage destiné a servir de suite et de complément au *Livre du Second Âge*, etc. *8vo. 14 pl. many figs. index.* *Paris.*

PULTENEY, RICHARD [1730–1801].
1805. A general view of the writings of Linnaeus. *4to. pp. 15+595. 2 pl. 2 portr.* *London.*
Among the best of the many Lives of the celebrated naturalist. The present volume is the second edition containing Memoirs by W. G. Maton. The first edition was published in 1781.

PU SHIH [2nd cent. A.D.].
1884. Yang yang fa. How to raise sheep. *pp. 2.* (In *Yü han shan fang chi i shu.*) *20×12·6 cm.* [G.]

PUTNAM, F. W. **1868.** *See* AMERICAN NATURALIST.

PUTNAM, GEORGE HAVEN.
1896. Books and their Makers during the Middle Ages. A Study of the Conditions of the Production and Distribution of Literature from the Fall of the Roman Empire to the Close of the Seventeenth Century. 2nd ed. *2 vols. 8vo.* Vol. I, 476–1600. Vol. II, 1500–1709. *New York.*
A masterly treatise worthy of any library. 'It is seldom that such wide learning, such historical grasp and insight, have been employed in their service.'—*Atlantic Monthly.*

PUXLEY, W. LAVALLIN.
1925. Green islands in glittering seas. *8vo. pp. 315. front. 15 pl. T. of c.* *London.*
Wanderings of a naturalist among the islands of the South Pacific, New Guinea in particular.

PYCRAFT, WILLIAM PLANE [1868–].
1890. A contribution to the pterylography of birds' wings. *8vo. pp. 24. bibliogr.* *Leicester.*
Author's reprint, a valuable contribution to our knowledge of the subject.

1894. The Courtship of Animals. *8vo.* *London.*

1898–1902. *See* WILLEY, A.

1898. A contribution towards our knowledge of the morphology of the owls. *4to. pp. 223–75. pl. 24–9. 5 figs. bibliogr.* (Author's excerpt.) [*London.*]

1901. The Story of Fish-Life. *pp. 210. 1 pl. illust. text.*
A well-written popular work, one of the Library of Useful Stories.

[**1901–2**]. *See* CORNISH, C. J., *ed.*

1908. A book of birds. *4to. pp. viii+155. 30 col. pl. 15 cuts in text.* *London.*
A popular treatise with a scientific flavor. Despite their small size the colored (plate) figures are helpful aids to identification.

[**1910**]. A history of birds . . . with an introduction by Sir Ray Lankester. *4to. pp. 31+458. illust. index.* *London.*

1910. Ruwenzori expedition reports. *See* OGILVIE-GRANT, WILLIAM ROBERT.

1911–13. The British bird book. *See* KIRKMAN, F. B. B.

1914. The courtship of animals. 2nd ed. *8vo. pp. xvi+318. front. 39 pl. index.* *London.*
The first edition appeared in 1894.

1922. Birds in flight. *8vo. pp. 10+139. 29 pl. (12 col.). T. of c.* *London.*
Bird-flight is well treated, and in popular fashion, with the aid of artistically drawn pictures by Roland Green. Several original examples of this illustrator (used in this copy) are in the E.S.W. Library.

[**1925**]. Camouflage in nature. *8vo. pp. 14+280.* *London.*

[*ca.* **1928**]. *See* BOULENGER, E. G.

n.d. The infancy of animals. 2nd ed. *8vo. pp. xiv+272. 64 pl. 22 figs. index.* *London.*

QĀSIM, MUḤAMMAD SULAYMĀN.
1794. Faras-nāma. (Persian Manuscript.)
A detailed treatise on the horse, recognition of good and healthy animals, different stocks, etc., also on treatment of diseases of horses, their upkeep, hygiene, etc. It is a very valuable and comparatively rare version of the translation of the ancient Indian treatise, *Salihotra*, prepared by 'Abdu'l-lah ibn Ṣafī by the order of the Bahmanide king of the Deccan, Aḥmad I, then the heir apparent, in A.H. 810 or A.D. 1407. The work is divided into 51 *bābs*, or chapters, each subdivided into a different number of paragraphs, or *faṣls*. At the end (pp. 342–51) there is another short treatise on the same subject, in which the name of the author and the date of composition are not given.
The copy is dated the 27th Ramadan A.H. 1208 or the 9th Apr. 1794. Scribe: Muḥammad Sulaymān b. Muḥammad Qāsim, written at Changhat, Persia. Crude illustrations. Condition fairly good.

QUARITCH, BERNARD [1819–99].
1912. Catalogue of books on natural history. *8vo. pp. (4)+316. T. of c. addend.* *London.*

QUARLES, EMMET AUGUSTUS [1876–].
1916. American pheasant breeding. *8vo. pp. (10)+128. 52 figs. append. index.* *New York.*

QUARTERLY BULLETIN OF ZOOLOGY.
1903–5. Vols. I–II. *Harrisburg, Pa.*

QUARTERLY OF THE CHARLESTON MUSEUM, CHARLESTON, S.C. 1923–*date*.

QUARTERLY JOURNAL OF AFRICAN ORNITHOLOGY.
1929. Vol. 1. Edited by Capt. A. F. Stoneham, Parknasilla P.O., Kitale Kenya Colony, Africa.

QUARTERLY JOURNAL OF THE FOLKESTONE NATURAL HISTORY SOCIETY.
1868–9. Nos. 1–4 (all pub.). *See* FOLKESTONE . . . SOCIETY.

QUARTERLY JOURNAL OF MICROSCOPICAL SCIENCE. *London.*
1853–60.

1861–*date*. New series.
Includes Transactions of Royal Microscopical Society.

QUARTERLY JOURNAL OF SCIENCE. *See* JOURNAL OF SCIENCE. *London.*

QUATREFAGES DE BRÉAU, JEAN LOUIS ARMAND DE [1810–92].
1854. Souvenirs d'un Naturaliste. *2 vols. 12mo. Paris.*
Edited excerpts from the *Revue des Deux Mondes.*

1857. The rambles of a naturalist on the coasts of France, Spain, and Sicily. Tr. by E. C. Otté. *2 vols. 8vo.* Vol. I, *pp. xix+355. append.* Vol. II, *pp. vii+375. append. London.*

1861. Unité de l'espèce humaine. *12mo. pp. 16+420. Paris.*

QUEENSLAND MUSEUM. *Brisbane.*
1891–1911. Annals. Continued as Memoirs.

1912–*date*. Memoirs.

QUEENSLAND NATURALIST. (Field Naturalists' Club, Brisbane.) **1908–*date*.** *Brisbane.*

QUEENSLAND ROYAL SOCIETY. *See* ROYAL SOCIETY OF QUEENSLAND.

QUEKETT MICROSCOPICAL CLUB. *London.*
1868–81. Journal. Series 1.

1882–*date*. Journal. Series 2.

QUENSEL, CONRAD.
1804. Utkast till Elefantens Naturalhistoria. *8vo. pp. 31. pl. Stockholm.*

QUENSTEDT, FRIEDRICH AUGUST VON [1809–89]
1855. Ueber Pterodactylus suevicus im lithographischen Schiefer Württembergs. *4to. pp. 4+52. illust. Tübingen.*

QUÉPAT, NÉRÉE. *See* PAQUET, H. R. R.

(THE) QUILL AND THE CANDLE.
1927. Poems of Birdland in Canada. *Toronto.*

QUOY, JEAN RENÉ CONSTANT [1790–1869]. *See* VOYAGES, FRENCH, L'ASTROLABE, 1830, and VOYAGE . . . [DE] L'URANIE ET LA PHYSICIENNE, 1824–6.

****** and GAIMARD,** JOSEPH PAUL [1790–1858].
[1827]. Observations zoologiques faites à bord de l'Astrolabe en Mai 1826, etc. *8vo. 8 col. pl. Paris.*
An important section of the report on this famous voyage.

RABANUS MAURUS, *Archbishop of Mainz* [776–856].
1467. De Sermonum Proprietate, seu de Universo. Roman Letter, double columns of 56 lines. Initial spaces, initials, paragraph-marks, and initial-strokes painted in red. Without printed signatures, foliation, or catchwords. [Strassburg, R—Printer = Adolf Rusch, before 20 July 1467.] *folio.* Proctor 239 [O.]
Book VII, Chapter I, contains the earliest descriptions of animals ever printed. The other chapters of Book VII are as follows: De minutis animalibus; De serpentibus; De vermibus; De piscibus; De avibus; De minutis avibus.
This, first of all printed Encyclopaedias, has the distinction of being Number One in Sir William Osler's chronologically arranged *Incunabula Medica*, as it also contains the earliest account of Medicine to appear in print.
Without place or date of impression like all the 'R—Printer's' (Adolf Rusch's) books, but printed in a Roman type, *the first Roman type used in Germany*, with a peculiar capital R from which the press is named. The *Bibliothèque Nationale* copy bears the full date of purchase, July 20th, 1467, inscribed by the first owner.
This Encyclopaedia is vastly interesting for the information it gives on every branch of human knowledge, and throws light on the beliefs current in the Middle Ages.
Rabanus was born at Mainz about 776, and reigned as Abbot in the Benedictine Monastery of Fulda from 822–42. From 847 he was Archbishop of Mainz. He and his master, Alcuin (who named him Maurus in memory of the famous disciple of St. Benedict), were the foremost scholars of the age of Charlemagne, and may be justly called the creators of education and schools in Germany.
Three copies only of this rare edition are known in the United States, one in the College of Physicians Library, one in Cornell University Library, and a third in the *Bibliotheca Osleriana*, McGill University.

RABAT. Mémoires de la Société des Sciences naturelles du Maroc. 1920–30.

RABAUD, ÉTIENNE [1868–].
1928. How animals find their way about. A study of distant Orientation and Place-Recognition. Tr. by I. H. Myers. *8vo. pp. ix+142. 30 figs. index. London.*

RABIÉ, *Major-General.* *See* ORIGINAL DRAWINGS, 1767–84.

RACCOLTA DI STORIA NATURALE.
1784–5? *Rome.*

RACOVITZA, ÉMILE G. [1868–]. *See* BELGIUM. 'La Belgica', 1901–13.

RADCLIFFE, LEWIS. **1917.** *See* EVERMANN, BARTON WARREN.

RADCLIFFE COLLEGE MONOGRAPHS. *Boston.*
1888–1911. 1, 2, 8 published also as Contributions from the Zoological Laboratory of the Museum of Comparative Zoology of Harvard College.

RADDE, GUSTAV FERDINAND RICHARD [1831–1903].
1862. Die Säugethierfauna im Süden v. Ost-Sibirien. *4to. 14 col. pl. 4 maps. St. Petersburg.*
On the mammalia of South-Eastern Siberia by an authority on Russian fauna.

1884. Ornis Caucasica. Die Vogelwelt des Kaukasus systematisch und biologischgeographisch beschrieben. *4to. pp. 12+592. 25 col. pl. 6 text-figs. map. Cassel.*
A systematic and thorough descriptive treatise on the birds of the Caucasus. The work was issued to subscribers in (four) parts. The plates were colored by the author.

1890. Vierter Nachtrag zur Ornis caucasica. *8vo. pp. 44. Wien.*
The fourth supplement to *Ornis Caucasica*, being a specially entitled excerpt from *Ornis*, 1890.

1892–1900. Berichte über das Kaukasische Museum und die öffentliche Bibliothek in Tiflis, für die Jahre 1892–1900. *9 pts. 8vo. pl. Tiflis.*
A useful catalogue and bibliography of the natural history of the Caucasus, especially of its birds. From the Cabanis-Reichenow collection.

1899. Sammlungen d. kaukas. Museums. Bd. I. Zoologie. (German and Russian.) *24 pl.*

RADEL, EMMANUEL. *See* RÁDL, EMMANUEL.

RÁDL, EMMANUEL.
1905–13. Geschichte der biologischen Theorien. *2 vols.* [O.] *Leipzig.*

RAFF, GEORG CHRISTIAN.
1788. Naturgeschichte für Kinder, etc. *8vo. Tübingen.*
1798. Naturgeschichte für Kinder. *8vo. pp. 18+724. illust. Tübingen.*
Sixth edition, published after the author's death by F. A. A. Meyer.

RAFINESQUE-SCHMALTZ, CONSTANTINE SAMUEL [1783–1840].
1816. Circular address on botany and zoology; followed by the prospectus of two periodical works; Annals of nature and Somiology of North America. *pp. 36.* Printed for the author by S. Merritt. *Philadelphia.*
This excessively rare Americana was secured for the Blacker Library from Taeuber and Weil, Munich. The copy in hand is a presentation by the author to Robert Brown, the English botanist.

1820. Annals of Nature. Photostat through the courtesy of the library of the U.S. National Museum, Washington.
An unfinished work intended to appear as a regular periodical. See the author's *Circular address on Botany and Zoology.*

1899. Ichthyologia Ohioensis, etc. Reprint and sketch by R. E. Call. *8vo. pp. 175. illust. Cleveland, Ohio.*

1908. Annals of nature; or, Annual synopsis of new genera and species of animals, plants, &c., discovered in North America. First annual number, for 1820. [Lexington, Ky., Printed by T. Smith, 1820.] *8vo. pp. (2)+16. Iowa City, Ia.*
The present edition (privately reprinted by T. J. Fitzpatrick of Iowa City, Iowa, January 15, 1908) is an exact copy, line for line, and page for page, of the rare pamphlet entitled *Annals of Nature,* by C. S. Rafinesque, issued on the frontier at Lexington, Kentucky, in 1820. On the pages of this pamphlet 25 new genera and 124 new species are proposed and characterized, distributed throughout the animal and vegetable kingdoms. Of birds four new species are described, Milvus leucomelas, Ardea phaioma, Charadrius viridis, and Hirundo phenicephala.

RAIMONDI, EUGENIO.
1785. La Caccia delle fiere, etc. *pp. 393. illust. ? Roma.*

RAINE, WALTER.
1892. Bird-nesting in North-West Canada. *8vo. pp. vii+197. 6 pl. (col., eggs.) 28 pl. (monochr.). 6 figs. index. Toronto.*

RAJA RAJESWAR-RAO *of Hydarabad.*
1906. Tashrihu'l-faras. Various breeds of horses. In Hindustani. *4to. pp. 23. lithogram. Lucknow.*
A modern treatise.

RALFE, PILCHER GEORGE.
1905. The birds of the Isle of Man [183 species]. *8vo. pp. lv+321. 49 pl. 2 maps (col.). addend. index. Edinburgh.*

RAMBERT, EUGÈNE [1830–86] and **ROBERT** LEO PAUL.
1878. Les oiseaux dans la nature; description pittoresque des oiseaux utiles. *folio. n.p. 60 col. and 50 plain pl. 122 figs. in text. Paris.*
This ponderous 'parlor edition', although written and printed in popular style, is still a scientific work of reference and the portraits of the birds are well reproduced. It is not listed in the *Cat. Br. Mus. (Nat. Hist.).*

1916. Die Vögel und ihre Welt [von] Eugène Rambert und L. P. Robert; Vorwort von Philippe Godet; aus dem französischen übertragen von H. Forster; mit zwei Beiträgen von Alfred Huggenberger. *4to. pp. (4)+414. 50 pl. (col.). index. Bern.*
The book first appeared in French 38 years previously. The text is by Rambert, the aquarelles by Robert. The copy in hand is an *édition de luxe.*

1922. Die Vögel und ihre Welt. *50 col. pl. Zürich.*
Another Swiss edition of this popular work.

RAMÍREZ, RICARDO.
1898. Zoologica agricola mexicana. *Mexico.*

RAMSAY, EDWARD PIERSON.
1876–94. Catalogue of the Australian birds in the Australian Museum, Sydney, N.S.W. Pts. I–IV and supplement. *8vo.* Pt. I, *pp. viii+64+3. 2 indexes.* Pt. II, *pp. 26+(5). 2 indexes.* Pt. III, *pp. (8)+106+iv. 2 indexes.* Pt. IV, *pp. (8)+23+(1). 2 indexes. supplement, pp. 9+(6). 2 indexes. Sydney.*

1888. Tabular list of all the Australian birds at present known to the author, showing the distribution of the species over the continent of Australia and adjacent islands. *4to. pp. 4+38 ff. map. Sydney.*

1890–8. Catalogue of the Australian birds in the Australian Museum, Sydney, N.S.W. Pts. I and II. Accipitres and Striges: By E. P. Ramsay. 2nd ed. With additions by A. J. North. *8vo.* Pt. I, *pp. xiii+74. 2 indexes.* Pt. II, *pp. (8)+30. 2 indexes. Sydney.*

1891. The Psittaci or Parrots of Australia in the Australian Museum (59 species). *pp. 130. Sydney.*

n.d. Contributions to the zoology of New Guinea. *pp. (2)+15. 1 pl. (5 figs.). Sydney.*
Author's reprint from *Trans. Linn. Soc. New South Wales.* Descriptions of collections from the interior of the island, and on the slopes of Mount Astrolabe. Seven new species of birds are described.

RAMSAY, ROBERT GEORGE WARDLAW [1852–1921].
1881. The ornithological works of Arthur, ninth Marquis of Tweeddale. *See* TWEEDDALE, A. H.

1923. Guide to the birds of Europe and North Africa; with a biographical memoir by W. E. Clarke. *8vo. pp. 12+355. illust. index. London.*

RAMSEYER, JOH. ULRICH.
1912. Der Gesang, das Leben und Lieben unserer Singvögel. 2nd ed. *12mo. pp. 12+83. 4 col. pl. T. of c. Aarau.*

1912–13. Unsere gefiederten Freunde; Freud und Leid der Vogelwelt. *2 vols. 8vo.* Vol. I, 1912, *pp. 98+2. 16 col. pl. 60 text-figs.* Vol. II, 1913, *pp. 83. 16 col. pl. 38 text-figs. Bern.*

RANDOM NOTES ON NATURAL HISTORY. 1884–6. *Providence, R.I.*

RANGIN SA'ADAT YAR KHAN OF DELHI [d. 1835].
1886. Faras-nāma-i-Rangin. Versif. tract on horses. Hindustani lithogram. *pp. 24. Cawnpore.*

RANZANI, CAMILLO [1775–1841].
1819–26. Elementi di zoologia. *3 vols. 8vo. illust. Bologna.*

RAPINE, JOSEPH [1884–] and **MÉNÉGAUX,** H. A.
[1921]. Les noms des oiseaux trouvés en France, etc. *See* MÉNÉGAUX, H. A. and RAPINE, J.

1828–9. *See* REBOUSSIN, ROGER.

RASMUSSEN, KNUD JOHAN VICTOR [1879–].
1921. Greenland by the Polar sea; the story of the Thule expedition from Melville Bay to Cape Morris Jesup, translated from the Danish by Asta and Rowland Kenney. *4to. pp. xxiii+326. 104 pl. (8 col.). 11 maps. 2 figs. index. London.*
References to birds occur throughout the book.

RASPE, RUDOLF ERICH [1737–94].
1763. Specimen historiae naturalis globi terraeque, etc. *Lipsiae.*

RASSEGNA DELLE SCIENZE BIOLOGICHE. 1919–*date. Florence.*

RATHBUN, FRANKLIN ROOT [1838–] and **others.**
1879. (A) revised list of [236 species of] birds of central New York. *8vo. pp. 47. Auburn, N.Y.*

1880–2. Bright feathers; or, Some North American birds of beauty. *5 pts. 4to. pp. vii+88. 5 pl. (col.). 16 figs. (2 col.). Auburn, N.Y.*

1905. The United States National museum: an account of the buildings occupied by the national collections. Author's reprint. *8vo. pp. 135. illust. Washington.*

RATHKE, J. *See* MÜLLER, O. F., 1788.

RATHKE, MARTIN HEINRICH [1793–1860].
1861. Entwickelungsgeschichte der Wirbelthiere. *8vo. pp. 8+201. Leipzig.*

RÄUBER, H. and **KOSSMANN,** R.
1877. Pisces [Red Sea]. Authors' reprint. *4to. pp. 34+2. illust. Leipzig.*

RAUSCH, MATHIAS.
1899. Die gefiederten Sängerfürsten des europäischen Festlandes. 2nd ed. *8vo. pp. 8+192. 3 col. pl. 16 text-figs. Magdeburg.*
A carefully prepared work on European song-birds, their domestic care and culture. From the collection of Prof. Cabanis.

RAVEN, CHARLES EARLE [1885–].
1916. Vogelleven in duin en veld. *8vo. pp. 171+5. photos. Alkmaar.*
A study of bird life among the Dutch sand dunes, etc.

1925. In praise of birds, pictures of bird life. *pp. xiv+148. 48 pl. 2 append. London.*

1927. The ramblings of a bird lover. *8vo. pp. xvi+186. 30 pl. index. London.*

RAVN, EDVARD.
1888. Om Dannelsen af Skillevæggen mellem Bryst- og Bughulen hos Pattedyrfostre; en embryologisk Studie. *8vo. pp. 4+62. illust. Kjøbenhavn.*

RAY, ISAAC [1807–81].
1829. Conversations on the animal economy, designed for the instruction of youth and the perusal of general readers. *8vo. pp. xi+242. Portland.*

RAY (or WRAY), JOHN [1628–1705].
1670. Catalogus Plantarum Angliae, et Insularum adjacentium, etc. *8vo.* [O.] *London.*
The literary productions of John Ray, who also spells his name Wray, are so bound up with his *fidus Achates*, F. Willughby, that it is difficult to separate them. However, the chief scribe was undoubtedly Ray, most of whose zoological titles will be found in the McGill libraries. The volume on pisces (as well as his other works) has run through many editions, commentaries, and translations. They are properly classed among the fundamentals of a knowledge of British (and general) zoology.

1673. Observations topographical, moral and physiological; made in a journey through part of the Low-countries, Germany, Italy and France, with a Catalogue of Plants not native of England, found spontaneously growing in those Parts, and their virtues. Whereunto is added a brief account of Francis Willughby Esq.; his voyage through a great part of Spain. *8vo. pp. 13+499+115. 4 pl. figs. in text. London.*

1674. (A) collection of English vvords [*sic*] not generally used, with their significations and original, in two alphabetical catalogues, the one of such as are proper to the northern, the other to the southern counties. With catalogues of English birds and fishes; and an account of the preparing and refining such metals and minerals as are gotten in England. 1st ed. *12mo. pp. 11+150.* [O.] *London.*
The important parts of this work are the early lists of birds and fishes.

1676. Francisci Willughbeii ornithologiae libri tres; totum opus recognovit, digessit, supplevit Joannes Raius. *See* WILLUGHBY, F.

1678. The ornithology of F. Willughby . . . Translated into English . . . with . . . additions . . . by J. Ray. *See* WILLUGHBY, F.

1686. F. Willughbeii . . . de Historia Piscium libri quatuor . . . adjecit J. Raius. *folio. See* WILLUGBY, F.

1693. Synopsis methodica Animalium Quadrupedum et Serpentini generis, etc. *8vo. pp. 16+336+8. 1 portr. London.*
A curious caption but an important early treatise on mammals and snakes.

1713. J. Raii Synopsis methodica Avium and Piscium; opus posthumum, etc. Ed. by W. Derham. *8vo. pp. 2+198+18+166+12. 4 pl. London.*
This classic treatise completes (with the *Synopsis Quadrupedum et Serpentini*) the author's contributions to vertebrate zoology, a series that should form part of every first-class library on natural history.

1718. Philosophical letters between the late learned Mr. Ray and several of his ingenious correspondents, natives and foreigners; to which are added those of Francis Willughby, the whole consisting of many curious discoveries and improvements in the history of quadrupeds, birds, fishes, insects, plants, fossiles, fountains, etc. *8vo. pp. (8)+376+(10). 12 figs. append. index. London.*

1738. Travels through the Low-Countries, Germany, Italy and France, with . . . observations, natural . . . physiological, etc. Also a Catalogue of Plants, found spontaneously growing in those parts . . . By . . . J. Ray . . . To which is added, an

[**RAY,** J. (*contd.*)]
account of the Travels of F. Willughby Esq., through great part of Spain. (A Collection of curious Travels and Voyages. Containing . . . L. Rauwolf's Journey into the Eastern Countries . . . Translated from the original High Dutch, by N. Staphorst. And also Travels into Greece . . . etc., collected from the observations of Mons. Belon, P. Alpinus . . . and others. To which are added three Catalogues of such Trees, Shrubs, and Herbs, as grow in the Levant. By . . . J. Ray.) The second edition, etc. *2 vols. 8vo. illust.* *London.*

A reprint of two distinct works: Vol. I, *pp. iv+428+120, 3 pls.*, containing Ray's own travels, appeared in 1673 as *Observations . . . made in a journey through part of the Low-Countries*, etc.; whilst vol. II, *pp. (viii)+489+44*, the *Collection of curious Travels*, came out in 1693 in two volumes.

1767. L'histoire naturelle, éclaircie dans une de ses parties principales, l'ornithologie, qui traite des oiseaux de terre, de mer et de riviere, tant de nos climats que des pays étrangers. Ouvrage tr. du latin du Synopsis avium de Ray, augm. d'un grand nombre de descriptions & de remarques historiques sur le caractere des oiseaux, leur industrie & leurs ruses. *folio. pp. 12+464. 31 col. pl.* *Paris.*

The rare edition with the plates colored. This treatise, on the birds of the world, is a French translation by Salerne of John Ray's *Synopsis methodica Avium et Piscium*, 1713, with considerable additions by the translator. The whole constitutes a work on ornithology of considerable value, furnishing a description of many species of birds, their habits, physical characters, vulgar names, etc.

RAY, MURDOCK and **DALL,** W. H.
1885. Report of the International Polar Expedition to Point Barrow, Alaska. *21 pl. (2 col., birds).* *Washington.*

RAY SOCIETY (founded 1844). **Publications on Zoology.**

The vertebrate and other zoological titles published by this extremely useful organization are shelved in the McGill libraries, except—so far 'wanting'—the annotated reprints of *Reports on the Progress of Zoology and Botany*, 1841–2; and *Reports on Zoology* for 1843–4.

REA, PAUL M.
1910. Birds of South Carolina. *See* WAYNE, A. T.

RÉAUMUR, RENÉ ANTOINE FERCHAULT DE [1683–1757].
1750. The art of hatching and bringing up domestic fowls, by means of artificial heat [tr. from the French by Abraham Trembley]. *8vo. pp. 2+61.* *London.*

The McGill libraries have not only this English translation of an important early work on artificial incubation (mostly experiments with manure heaps and the baker's oven) but a French and a German edition.

1751. Pratique de l'art de faire éclorre et d'élever en toute saison des oiseaux domestiques de toutes espèces, soit par le moyen de la chaleur du fumier, soit par le moyen de celle du feu ordinaire. *16mo. pp. xii+144. 4 pl. 2 figs. T. of c.* *Paris.*

1767–8. Anweisung wie man zu jeder Jahreszeit allerley zahmes Geflügel entweder vermittelst der Wärme des Mistes oder des gemeinen Feuers ausbrüten und aufziehen solle; aus dem französischen übersetzt von J. C. Thenn. *2 vols. illust.* *Augsburg.*

REBOUSSIN, ROGER and **RAPINE,** J.
1928–9. L'oiseau chez lui; livre couleur du temps, avec diagnoses par J. Rapine. Fascicules 1–6. Series I. *folio. pp. 48. 6 pl. (col.). 68 figs.* *Paris.*

Highly original text and illustrations. Series I is to be completed in ten fascicules.

RECCHUS (RECCHI), NARDUS ANTONIUS.
1651. Rerum medicarum Novae Hispaniae thesaurus . . . ex F. Hernandez (*q.v.*). *folio.* *Roma.*

RECHERCHES ASIATIQUES. *See* ASIATIC SOCIETY OF BENGAL, CALCUTTA.

RECORD OF ZOOLOGICAL LITERATURE. *See* ZOOLOGICAL RECORD.

RECORDS OF AMERICAN SOCIETY OF NATURALISTS. 1883–*date*. *See* AMERICAN SOCIETY OF NATURALISTS.

RECORDS OF THE AUSTRALIAN MUSEUM, SYDNEY. 1890–*date*.

RECORDS OF WALKS AND TALKS WITH NATURE. Conducted by C. J. Maynard, West Newton, Mass. Weekly. Irregular.
1908–21. Vols. 1–13. *40 nos. to a vol. 12mo. illust. index to each vol.*

These little records are replete with interest and deal almost entirely with bird life.

RECREATIONS IN AGRICULTURE, NATURAL HISTORY, ARTS AND MISCELLANEOUS LITERATURE. 1799–1802. *London.*

RECREATIONS IN NATURAL HISTORY; or Popular Sketches of British Quadrupeds, etc., after L. Clennell.
1815. Anonymous. *4to.*

RECREATIVE SCIENCE. 1858–61. *See also* INTELLECTUAL OBSERVER, and STUDENT AND INTELLECTUAL OBSERVER. *London.*

RECUEIL DE L'INSTITUT ZOOLOGIQUE TORLEY-ROUSSEAU.
1927. (A. Lameere.) Suite des Annales de biologie lacustre. Tome 1. *Bruxelles.*

RECUEIL ZOOLOGIQUE SUISSE. *Geneva.*
1884–92. Continued as Revue Suisse de Zoologie.

REDI, FRANCESCO [1626–98].
1664. Osservazioni intorno alle Vipere, etc. *4to.* Also O. 3774. *Firenze.*

1671. Esperienze intorno a diverse cose naturali, etc. *4to. illust.* [O. 3776.] *Firenze.*

1684. Osservazioni intorno agli Animali viventi che si trovano negli Animali viventi. *illust.* [O. 3777.] *Firenze.*

1712–30. Opere. With Redi's biography by Salvino Salvini, funeral speech by Ant. Maria Salvini, several letters and remarks by Giac. Cestoni and Ant. Vallisnieri, etc. With portraits, frontispieces, vignettes, and a great number of engraved plates. *7 vols. 4to.* *Venice.*

The works (including the letters) of this celebrated medical naturalist are best presented in this scarce Venetian edition. The valuable notes by Apostolo Zeno are found in this printing. The author's observations on vipers and his chapters *A cose naturali* are of especia value. The first volume is entirely devoted to natural history.

1748. Opere . . . nuova editione. [Including zoological works.] *7 vols. 4to. illust.* [O. 3772.] *Napoli.*

Supposed to be even a more complete edition than the Venice print of 1712.

REDINGTON, Paul Goodwin [1878–] and **HIGGINS,** Elmer [1892–].

1930. Wild life. *New York.*

Based on Van Hise's *Conservation of natural resources in the United States.*

REED, Charles K. [1851–] and **REED,** Chester A.

1914. Guide to taxidermy. *8vo. pp. 304+(4). 44 pl. 175 figs. index. Worcester, Mass.*

An enlarged edition of the original published in 1903.

REED, Chester Albert [1876–1912].

1903. Color Key to North American Birds. *See* Chapman, F. M.

1904. North American birds' eggs. *8vo. pp.(10)+356. front. (col.). 931 figs. and sketches (2 col.). index. New York.*

1910. Nature study; birds. *12mo. pp. 97+viii. 80 figs. (40 col.). index. Worcester, Mass.*

1911. Camera studies of wild birds in their homes. *8vo. pp. 312. 7 pl. (col.). 260 figs. index. Worcester, Mass.*

1912. Birds of eastern North America. *8vo. pp. xiv+451. front. (col.). 408 figs. (col.). 23 figs. index. Garden City, N.Y.*

1913. Bird guide. Water birds, game birds and birds of prey east of the Rockies. *8vo. pp. 240. illust. Worcester, Mass.*

1914. *See* Reed, C. K.

1916. Bird guide; water birds, game birds and birds of prey east of the Rockies. *32mo. pp. 240. 217 figs. (col.). 66 figs. index. Garden City, N.Y.*

Another edition of this popular and very useful pocket-sized handbook for the identification of water birds, game birds, and birds of prey east of the Rockies. A colored figure is given of each species, together with a brief description, to which is added also a 'field key' at the commencement of the volume. The first edition was published in 1906.

1920. Western bird guide, birds of the Rockies and west to the Pacific. *32mo. pp. 252. 234 figs. (col.). index. New York.*

A work similar to the author's *Bird Guide*, 1923, to which it forms a companion volume.

1923. Western bird guide; birds of the Rockies and west to the Pacific. *32mo. pp. 252. col. figs. Garden City, N.Y.*

REES, Thomas Alfred Wellesley [1872–1917].

1920. The heron of Castle Creek and other sketches of bird life. *8vo. pp.(12)+218. index. London.*

REESE, Albert Moore.

1915. The Alligator and its Allies. *col. front. 28 pl. 68 figs. in text. N.Y.*

A scientific treatise written in popular fashion, and with a good bibliography.

REEVE AND COMPANY.

1853–60. Natural History. *23 vols. 8vo. London.*

A popular cyclopedia with several volumes devoted to vertebrate zoology.

REGAN, Charles Tate.

1879–1915. *See* Godman and Salvin, Biologia Centrali-Americana.

1914–22. *See* Br. Mus. (Nat. Hist.), 'Terra Nova'.

[1914]–16. *See* Ogilvie-Grant, Wm. R., *ed.*

REGENSBURG. Naturwissenschaftl. Verein.

1849–64. Abhandlungen.

1847–87. Correspondenz-Blatt [continued as]

1888–1930. Berichte.

RÉGUIS, J. F. Marius [1850–].

1882. Essai sur l'histoire naturelle des vertébrés de la Provence et des départements circonvoisins. Vertébrés anallantiodiens. (Poissons et batraciens.) *8vo. pp. 425. text-figs. Marseille.*

The volume in hand is a presentation copy of an important treatise, with the author's autograph.

REICHENBACH, Anton Benedict [1807–80].

1850. Praktische Naturgeschichte der Vögel, für Gebildete aller Stände. *4to. pp. 740. 89 pl. (col.). 2 indexes. Leipzig.*

Practical natural history of birds illustrated with fine, colored steel engravings.

REICHENBACH, Heinrich Gottlieb Ludwig [1793–1879].

1834–63. Der Naturfreund, oder . . . Naturgeschichte des In- und Auslandes, etc. *4to.* (Wanting.) *Dresden and Leipzig.*

The numerous faunal (and floral) works of this important and versatile naturalist are mostly rare, as well as confusing to the bibliographer. They are commonly regarded with despair by the cataloguer. The above title was continued as a *Central-Atlas für Zoologische Garten* (1862–3) and is made up of a long array of important monographs, a complete list of which will be found in the *Cat. Br. Mus. (Nat. Hist.)*, p. 1669, to which the student is referred. The complete series is extremely scarce, although parts, more available, are found as separate publications, a number of them in the McGill libraries. The librarian and bibliographer should consult A. B. Mayer's *Index zu L. Reichenbach's Ornithologischen Werke*, in which a more or less successful effort is made to bring order out of the author's literary chaos.

1837–9. Deutschlands Fauna; oder, Praktisch-gemeinnützige Naturgeschichte der Thiere des Inlandes mit naturgetreuen Abbildungen aller Arten. *2 vols. 4to. illust. Leipzig.*

Contents. Vol. 1. Säugethiere. 2. Vögel.

1845–62. Vollständigste Naturgeschichte der Vögel des In- und Auslandes. *13 vols. 4to and 8vo. 920 col. pl. and 106 plain pl. index. Dresden.*

The E.S.W. Library has also several sections of this treatise published separately with independent titles. See the *Ayer-Zimmer Cat. Field Mus.* library.

1849–53. Avium systema naturale. Das natürliche system der Vögel, mit hundert Tafeln grösstentheils Original-abbildungen der bis jetzt entdeckten fast zwölfhundert typischen formen. Vorläufer einer Iconographie der arten der vögel aller Welttheile . . . von L. Reichenbach. *folio and 4to. atlas. 100 pl. Dresden and Leipzig.*

Contents. Pl. 1–10. Natatores. Die Gatungen der Schwimmvögel. 11–18. Grallatores. Die Gattungen der Sumpfvögel. 19–32. Rasores. Die Gattungen der Hühnervögel. 33–51. Insessores. Investigatores. Die Späher. 52–71. Insessores. Trepidatores. Die Trippler. 72–86. Insessores. Enucleatores. Die Knacker. 87–100. Insessores. Raptatores. Die Raubvögel.

This well-known atlas, with titles both in French and English, has

[**REICHENBACH,** H. G. L. (*contd.*)]

been issued (in parts and otherwise) under various guises as a pictorial collection of the feet, wings, heads, and tails of the various orders of birds.

It is really an introductory part of the author's ambitious *Die vollständigste Naturgeschichte*, published in 1845–62. The text contains a disquisition on avian classification and furnishes a systematic catalogue intended to include all the avian orders, a task only partly completed. The McGill libraries have three copies of the *Avium systema naturale*, each with a different title-page and on different size or quality of paper, but with identical plates.

1850. Avium systema naturale. Das natürliche System der Vögel, etc. *8vo. pp. (4). 7 engr. l.-p. (Orders). 100 pl.* *Dresden.*

Another (smaller format on thin paper) printing of this famous work.

1850–63. [Synopsis avium; plates.] [Dresden, 1850–63.] *[12] vols.*

CONTENTS. Vol. 1. Schwimmvögel. 2. Sumpfvögel. 3. Wasserhühner und Rallen. 4. Taubenvögel. 5. Hühnervögel. 6. Eisvögel. 7. Bienenfresser. 8. Klettervögel. 9. Colibris. 10. Baumläufer. 11. Spechte. 12. Ausländische Singvögel. List of contents supplied from binder's title.

The above 12 volumes of Reichenbach's work, in the E.S.W. Library, are without descriptive text, most of the titles and contents being supplied as above. The collection consists of hundreds of fine hand-colored plates with thousands of figures depicting the birds of the world.

1852. Icones ad synopsin avium: Meropinae. Continuatio No. IX. *4to. pp. [4]+45–144. 67 col. pl. (1 inserted). T. of c.* *Leipzig.*

Being Lieferung 9 of his *Deutschlands Fauna; oder, Praktisch-gemeinnützige Naturgeschichte der Thiere des Inlandes.*

These beautifully colored plates of the Bee-eaters have an inserted title-page as above, dated 1837, but the monograph itself bears date March 1, 1852. The separately bound volume in hand is, of course, only one portion of the author's *Handbuch der speciellen Ornithologie.*

1854. Aufzählung der Colibris, oder Trochilideen, in ihrer wahren natürlichen Verwandtschaft, nebst Schlüssel ihrer Synonymik. *8vo. pp. 24.* *Cassel.*

Issued as an author's separate from the *Journal f. Ornithologie*, Jahrg. I.

1862–3. Die vollständigste Naturgeschichte der Tauben und taubenartigen Vögel. *2 pts. 4to. 75 hand-col. pl. atlas.* *Leipzig.*

1862. Die Singvögel als Fortsetzung der vollständigsten Naturgeschichte und zugleich als Central-Atlas für zoologisch Gärten und für Thierfreunde. *8vo. pp. 4+90. 50 col. pl.* *Dresden.*

A volume on exotic song-birds, the illustrations for which were taken from author's earlier works.

n.d. Die Vögel Deutschlands. Neue vermehrte Ausgabe. *4to. pp. iv+346+36. 55 pl. (col.). 750 figs. bibliogr. index.* *Dresden.*

REICHENOW, ANTON [1847–?1915].

1869–96. Anton Reichenow; ein Verzeichniss seiner bisherigen Arbeiten 1869–96. *See* SCHALOW, H.

1878–83. Vogelbilder aus fernen Zonen; Abbildungen und Beschreibungen der Pagageien. *folio.* Pt. I, *pp. (84). index.* Pt. II, *pp. (2). 18 pl. (col.).* Pt. III, *15 pl. (col.).* *Cassel.*

A series of colored plates illustrating the known parrots, accompanied by short descriptions of each and notes on their distribution; contained in three portfolios. The supplement contains descriptions (without figures) of the species discovered after the publication of the other portions of the work. Issued in 11 parts of three plates each.

1880. Vogelbilder aus fernen Zonen; Abbildungen und Beschreibungen der Papageien. *folio.* Pts. I–VI, *pp. (36). 18 pl. (col.).* *Cassel.*

A trimmed and bound copy wanting title-page but with cover bearing the date 1880, of parts I–VI of the 1878–83 edition. The 36 pages of text are typewritten lists of the various parrots figured on each of the 18 colored plates.

1882. Conspectus Psittacorum. Systematische Uebersicht aller bekannten Papageienarten. *pp. 234. folding table.* *Berlin.*

This is an important, separately issued (*Selbstverlag des Verfassers*) and systematic catalogue of the Parrots of the world, with a brief description of species, their synonymy and distribution. It appears to be an amended edition or variant of the author's *Vogelbilder ... der Papageien*, 1878–83.

1882–4. Die Vögel der Zoologischen Gärten. *2 vols. 8vo.* Vol. I, *pp. xxx+278. 1 fig.* Vol. II, *pp. xix+456. index.* *Leipzig.*

A descriptive catalogue of 1,500 birds to be found in European zoological gardens.

1889. Systematisches Verzeichnis der Vögel Deutschlands und des angrenzenden Mittel-Europas. *8vo. pp. 4+68.* *Berlin.*

A brief, descriptive list of 396 species, with numerous MS. notes and additions to the text made by Prof. Reichenow in his own hand, the present volume being the author's own copy.

1891. Entwurf von Regeln für die zoologische Nomenclatur, dem II. Intern. Ornith. Congress in Budapest 1891. *folio. pp. 14.* *Budapest.*

1891–1901. *See* STUHLMANN, F. L.

1893. *See also* DEUTSCH-OST-AFRIKA.

1894. Die Vögel Deutsch-Ost-Afrikas. *4to. pp. 4+250. 108 figs. in text (44 col.).* *Berlin.*

A valuable, systematic descriptive treatise on the birds of German East Africa. The present copy forms part of the Cabanis-Reichenow collection on the E.S.W. Library.

1896. *See* MÖBIUS, KARL AUGUST.

1900–5. Die vögel Afrikas. *3 vols.* text. *1 vol.* atlas. *4to. indexes.* Vol. I, 1900–1, *pp. 104+706.* Vol. II, 1902–3, *pp. 16+752. 5 col. maps.* Vol. III, 1904–5, *pp. 25+880. 19 col. pl.* Vol. IV, Atlas, 1902–5, *pp. 50. 30 col. pl. maps. 5 text-figs.* *Neudamm.*

The most complete and most important monograph on the Birds of Africa so far written. It appeared in six parts.

1902. Die Kennzeichen der Vögel Deutschlands, Schlüssel zum Bestimmen, deutsche und wissenschaftliche Benennungen geographische Verbreitung, Brut- und Zugzeiten der deutschen Vögel. *8vo. pp. 4+150. 8 pl.* *Neudamm.*

An anatomical and descriptive key to 405 German species.

1905. *See* SCHILLINGS, CARL GEORG.

1906. *See* VOELTZKOW, ALFRED.

1909. *See* BRAUER, AUGUST.

1913. Die vögel; handbuch der systematischen ornithologie. *2 vols. in 1. 4to. pp. 8+529. map. 185 text-figs. index.* *Stuttgart.*

The author believes that in spite of the many treatises on systematic ornithology accessible to the student one dealing more particularly with the interrelations of birds is needed; hence this carefully prepared and well-illustrated work.

REICHLING, HERMANN [1890–].

1915. Die Flügelfederkennzeichen der nordwestdeutschen Vögel. *8vo. pp. 99. 7 pl.* *Bernberg.*

An illustrated monograph on the wings of North German birds. Inaugural thesis (Münster) from the Cabanis-Reichenow collection.

REID, GEORGE.

1890. Catalogue of the birds in the Provincial museum, N.-W.P. and Oudh. *8vo. pp. 4+357. index.* *Allahabad.*

A record of the purely Indian birds in the Lucknow Museum to the number of 783 species represented by 5,360 specimens. Jerdon's classification is followed. This volume is a presentation copy from the compiler.

REID, PHILIP SAVILE GREY.

1883. The birds of the Bermudas. *8vo. pp. 44.* *Hamilton.*

This small brochure first appeared in *The Zoologist*, 1877, and is now 'reprinted by permission, with an Appendix'.

1884. The birds of Bermuda. *pp. 118.* *Washington.*

A separately issued memoir (*Bull. 25, U.S. Nat. Museum*) giving an excellent account of Bermudan birds. The present copy (from Canon Tristram's library) is especially interesting because of three inserted letters from the author to H. B. Tristram discussing the avifauna of the Island.

1884. *See* JONES, H. E. E. and GOODE, G. B.

1901–12. Catalogue of the collection of birds' eggs in the British museum. *See* BRITISH MUSEUM (NATURAL HISTORY).

REIDER, J. E. VON and **HAHN,** C. W.

1830–5. Fauna Boica . . . Naturgeschichte der Thiere Bayerns. *6 Abtheil. 8vo. illust. in col.* *Nürnberg.*

A valuable contribution to the faunal literature of Bavaria, usually bound in four volumes. There were in all ten parts, irregularly issued but giving a full account of all the faunae (including the vertebrates) then known.

REIGHARD, JACOB ELLSWORTH [1861–] and **JENNINGS,** H. S.

1901. Anatomy of the cat. 2nd ed. *8vo. pp. 20+398. illust.* *New York.*

REIMARUS, HERMANN SAMUEL [1694–1765].

1798. Allgemeine Betrachtungen über die Triebe der Thiere . . . aufs Neue durchgesehen, etc. 4th ed. *2 pts. in 1 vol. 8vo. pp. 20+528+104+28.* *Hamburg.*

The first edition was published in 1760.

REINHARDT, JOHANNES THEODOR [1816–82].

1870. Bidrag til Kundskab om Fuglefaunaen i Brasiliens Campos. *8vo. pp. 146. illust.* *Kjøbenhavn.*

REISER, OTHMAR.

1894–1905. Materialien zu einer Ornis Balcanica. *2 vols. 4to.* [Vol. I not yet published.] Vol. II, 1894, Birds of Bulgaria. *pp. xii+204. 3 col. pl. map. index.* Vol. III, 1905. Birds of Greece and Montenegro. *pp. xiv+589. 4 col. pl. map. 5 figs. index.* *Sarajevo.*

Well-known monographs, probably the best treatises so far published on the subjects indicated. The first volume was intended to describe the birds of (former) Bosnia and Herzegovina, but it has not yet been issued. The copy in hand was presented by the author to Bowdler Sharpe.

RELIGIOUS TRACT SOCIETY.

1840. British birds. *24mo. pp. vii+216. 24 pl. (col.).* *London.*

1842. Birds. *12mo.* *London.*

n.d. Birds. *5 vols. in 1. 32mo. illust.* *London.*

n.d. A book about Birds. *12mo. pp. 4+68. 6 col. pl. 4 text-figs.* *London.*

RENARD, LOUIS.

1754. Poissons Écrevisses et Crabes . . . que l'on trouve autour des isles Moluques, et sur les côtes des Terres Australes. *2 vols. (in 1). folio. pp. xvi. 100 col. pl.* *Amsterdam.*

This important treatise was first published in 1718–19, vol. I having been based on original matter furnished by B. Coyett; the second volume on observations by A. Vander Stell. The present edition is really a reissue of the first with a new title-page and a preface by A. Vosmaer. Both printings are quite rare.

RENDICONTI DELLA CLASSE DI SCIENZE FISICHE D. (R.) ACCADEMIA DEI LINCEI, ROMA. **1892–*date*.** *See* (R.) ACCADEMIA DEI LINCEI, ROMA.

RENGGER, JOHANN RUDOLPH [1795–1832].

1830. Naturgeschichte der Saeugethiere von Paraguay. *8vo. pp. 16+394.* *Basel.*

RENNIE, JAMES [1787–1867].

1831. (The) architecture of birds. *12mo. pp. xvii +390. 78 figs.* *Boston.*

A popular compilation, frequently reprinted and translated.

1832. The natural history and antiquities of Selborne. *See* WHITE, *Rev.* GILBERT.

1833. Die Baukunst der Vögel. *Leipzig,*

The first German edition.

1835. The field naturalist; a review of animals, etc. *2 vols. 8vo.* Vol. I, *pp. viii+552. text-figs.* Vol. II, *pp. 220. 2 pl. (col.). 37 figs. in text.* *London.*

1835. (The) faculties of birds. *12mo. pp. xvi+338. 15 pl. 49 figs. index.* *London.*

1844. Bird-architecture. *16mo. pp. 304. 50 figs.* *London.*

1847. Die Baukunst der Vögel; aus dem Englischen nach der neuesten verbesserten Aufl. von Franz Kottenkamp. *8vo. pp. 289. illust.* *Stuttgart.*

n.d. The architecture of birds. *pp. xii+384. 78 figs.* *London.*

RENNIE, JOHN.

1910. The aims and methods of nature study, a guide for teachers. *12mo. pp. xvi+352. 178 figs. glossary. index.* *London.*

1912. School lessons in plant and animal life. *12mo. pp. xvi+480. 195 text-figs. glossary. index.* *London.*

RENSHAW, GRAHAM.

1911. More animal romances. *8vo. pp. (12)+252. 13 pl.* *London.*

1925. Pet birds of Bengal. *See* LAW, S. C.

REPERTORIUM DER NATURWISSENSCHAFTEN. **1875.** *Berlin.*

REPERTORIUM DES NEUESTEN UND WISSENWÜRDIGSTEN AUS DER GESAMMTEN NATURKUNDE. **1811–13.** *Berlin.*

REPERTORIUM DER TECHNISCHEN, MATHEMATISCHEN UND NATURWISSENSCHAFTLICHEN JOURNALLITERATUR. **1869–71.** *Leipzig.*

REPERTORIUM DER THIERHEILKUNDE. 1840–93. *Stuttgart.*

REPORT OF THE ADELAIDE SOCIETY FOR THE PROTECTION OF BIRDS.
1908–12. 1–5. Annual. *Adelaide, Australasia.*
The Compiler has not been able to obtain reliable data of this yearly report.

REPORT ON BIRDS IN DENMARK. A roman numeral precedes and the year of the report follows the title. Separates from *Ornis*. *See also* FUGLENE VED DE DANSKE FYR.
This publication is issued as an independent periodical.

REPORT OF BRUSH HILL BIRD CLUB.
1914. Report No. 1. *pp. 123. illust.*
This is the only number the Compiler has seen.

REPORT OF THE CAGE-BIRD SOCIETY. *See* FOREIGN BIRD NOTES.

REPORT OF THE ESSEX CO. (MASS.) ORNITHOLOGICAL CLUB. *See* BULLETIN OF ESSEX CO. ORNITH. CLUB.

REPORT ON THE MIGRATION OF BIRDS.
1880–7. Nos. I–IX. *8vo.* Annual.
The first Annual Report appeared in *The Zoologist*, May 1880; and the series were mainly penned by such observers as Harvie-Brown, Cordeaux, Barrington More, W. Eagle Clark, and Kermode. The Compiler has not been able to place the final issue.

REPORT ON THE MOVEMENTS AND OCCURRENCE OF BIRDS IN SCOTLAND. By Lionel W. Hinxman and T. G. Laidlaw.
1892–9. Reprinted from the *Annals of Scottish Nat. History.*
The title of this valuable report sufficiently indicates its scope. Its standing as a genuine periodical is doubtful but it may be regarded as the forerunner of the *Report on Scottish Ornithology.*

REPORT OF THE NATIONAL AUDUBON SOCIETIES. *See* AUDUBON SOCIETIES, NATIONAL.

REPORT OF THE ORNITHOLOGIST, Dept. of Agriculture [U.S.A.]. By C. Hart Merriam, Washington, D.C. Printed separately from the Annual Report of the Department, but usually with the paging of the latter.
The following have been examined by the Compiler:
1886. *pp. 227–58. map and separate title-page.*
1887. *pp. 4+(399–456). illust. index.*
These interesting annuals are largely devoted to economic ornithology but are of the greatest value to every student of bird life, containing as they do essays on bird protection and on the balance of life in its relations to agriculture, forestry, etc.

REPORT ON SCOTTISH ORNITHOLOGY in [year] **including Migration.** By Evelyn V. Baxter and Leonora J. Rintoul. **1909–20.** *Edinburgh and London.*
These interesting and, from a scientific viewpoint, most valuable annuals will, it is to be hoped, be continued indefinitely.

REPORTS OF THE ACCLIMATISATION AND ORNITHOLOGICAL SOCIETY OF LONDON.
1861–8. Annual reports, 1st–8th. *8 vols. in 1.* *London.*

REPORTS OF THE AUSTRALASIAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE. 1888–1930. *Sydney.*

REPORTS OF THE AUSTRALIAN MUSEUM, SYDNEY. 1874–1930.

REPORTS OF THE BELFAST NATURAL HISTORY AND PHILOSOPHICAL SOCIETY. 1871–*date*. *See* BELFAST.

REPORTS OF THE CANADIAN ARCTIC EXPEDITION. 1913–18. *See* CANADA, 1906.

REPORTS OF THE UNITED KINGDOM AND FOREIGN CAGE-BIRD SOCIETY. Edited by W. Osbaldeston for the Society.
1890–5. (All pub.) Irregular. *12mo. 4 vols. indexes.* *Preston.*
The issues are not numbered, while the parts of the first volume bear irregular dates, and are separately paged; occasionally the pagination is continuous and includes two or more numbers. This useful little periodical contained in addition to a list of society members, many short, interesting papers on cage-birds, especially by the Editor, by W. T. Greene, and other well-known naturalists.

RETZIUS, ANDERS JOHAN [1742–1821]. **1800.** *See* LINNAEUS, C.

RETZIUS, MAGNUS GUSTAF [1842–1919].
1881–4. Das Gehörorgan der Wirbelthiere. *2 vols. illust.* *Stockholm.*
Vol. 1. Das Gehörorgan der Fische und Amphibien. 2. Das Gehörorgan der Reptilen, der Vögel und der Säugethiere.

1881–*date*. Biologische Untersuchungen. *19 vols. 4to. num. pl.* Continued as Neue Folge, etc., 1890– . *Stockholm and Leipzig.*
Although both series of these truly monumental volumes are mostly taken up with the histology of invertebrates, human craniology, and general studies of the nervous system, there are many chapters devoted to the morphology of vertebrates.

REUTER, ODO MORANNAL [1850–] and **MELA,** A. J.
1883–93. Finlands fiskar, målade efter naturen af G. Sundman. (The Fishes of Finland drawn and coloured from life.) Häft. 1–12. *folio. 40 col. pl.* *Helsingfors.*
Twelve parts of this standard work on the fishes of Finland are all that have appeared to the present date. The published portions are of great importance, especially as the descriptive text is in English (as well as Swedish).

REVISTA (R.) ACADEMIA DE CIENCIAS EXACTAS, FÍSICAS Y NATURALES DE MADRID. 1904–*date*. *See* (R.) ACADEMIA DE CIENCIAS, etc., . . . MADRID.

REVISTA ACADEMIA DE CIENCIAS EXACTAS, FÍSICO-QUÍMICAS Y NATURALES DE ZARAGOZA. 1916–*date*. *See* ACADEMIA DE CIENCIAS . . . ZARAGOZA.

REVISTA ARGENTINA DE HISTORIA NATURAL. *Buenos Aires.*
1891. Nos. 1–6 (all pub.).

REVISTA DI BIOLOGIA. 1919–*date*. *Rome.*

REVISTA DI BIOLOGIA GENERALE.
1899–1901. *Turin.*

REVISTA CHILENA DE HISTORIA NATURAL. (**Museo de Historia Natural.**) **1897**–*date.* *Valparaiso.*

REVISTA DE CIENCIAS NATURALES DE MADRID. **1842.** *Madrid.*

REVISTA CIENTÍFICA. Universidad Central de Venezuela. *See* CARACAS.

REVISTA ITALIANA DI ORNITOLOGIA. Ed. by E. Arrigoni degli Oddi and others. Quarterly.
1911–20. (All pub.?) *8vo. illust.* No issue in 1917–18. *Bologna.*
The *Rivista* not only gave a practical review of general ornithological literature but published many original articles of value. Among its contributors (and editors) were Francesco Chigi, Alesandro Ghigi, F. Cavazza, Giac. Martorelli, Tommaso Salvadori, and G. Vallin.

REVISTA DE MALAGA. (**Sociedad de Ciencias, Físicas e Naturales.**) **1876?**

REVISTA MEXICANA DE BIOLOGÍA. **1920**–*date.* *Mexico.*

REVISTA DE SCIENCIAS NATURAES. **1907–30.** *See* BROTÉRIA. *Lisbon.*

REVISTA DE SCIENCIAS NATURAES E SOCIAES. *Oporto.*
1890–8. Continued as Portugalia.

REVISTA DE ZOOTECHNIA E VETERINARIA. **1911**–*date.* *Rio de Janeiro.*

REVISTA ZOOTÉCNICA. **1909**–*date.* *Buenos Aires.*

RÉVOIL, GEORGES [1852–1926].
1882. Faune et Flore des Pays Çomalis (Afrique Orientale). *10 pts. in 1 vol. 8vo. illust.* *Paris.*
This valuable contribution to the flora and fauna of Somaliland includes an account of the birds by É. Oustalet, *pp. 14, 1 col. pl.*, and the reptiles and batrachians, *pp. 25*, by L. Vaillant.

REVUE D'ANTHROPOLOGIE. *Paris.*
1872–7. Series 1.
1878–85. Series 2.
1886–9. Series 3.
United with other journals to form Anthropologie.

REVUE AVICOLE. (**Société Centrale d'Aviculture de France.**) **1890**–*date.* *Paris.*

REVUE BIOLOGIQUE DU NORD DE LA FRANCE. **1888–95.** *Lille.*

REVUE CRITIQUE DE PALÉOZOOLOGIE. **1897–1924.** *Paris.*

REVUE DER FORTSCHRITTE DER NATURWISSENSCHF. IN THEORETISCHER U. PRAKTISCHER BEZIEHUNG.
1873–90. Vols. I–XVII. *Cologne and Leipzig.*

REVUE FRANÇAISE D'ORNITHOLOGIE SCIENTIFIQUE ET PRATIQUE. First Editor, L. Denise; later, A. Ménégaux, Paris.
1909–30. Vols. I–XXII. *8vo.* Monthly. The first two volumes are paged continuously. *col. pl. T. of c.* *Orleans.*
Although the French ornithological journals do not, as a rule, equal the principal English, American, and German periodicals in any department of the zoological subject to which they are severally devoted (certainly not at all in illustrative matter) yet this *Revue* is a valuable and efficient vehicle for the publication of contributions affecting the birds of France and her dependencies. Among the ornithologists (other than those of the editorial staff) on the contributors' list are Xavier Raspail, A. Philipon, F. Daguin, E. Simon, Comte de Zedlitz, A. Hughes *et al.* The *Revue* has from its inception been a firm advocate of the protection of birds.

REVUE D'HISTOIRE NATURELLE APPLIQUÉE. *Paris.*
1920–*date.* Mammalogie. Part 1.
1920–*date.* Ornithologie. Part 2.

REVUE INTERNATIONALE DES SCIENCES BIOLOGIQUES.
1878–83. (de Lanessan.) I–XII (all pub.).

REVUE ET MAGASIN DE ZOOLOGIE PURE ET APPLIQUÉE. *Paris.*
1838–48. Series 1.
1849–72. Series 2.
1873–9. Series 3.
Formed by union of Magasin de Zoologie and Revue Zoologique.

REVUE DES REVUES D'HISTOIRE NATURELLE. *Paris.*
1900. Continued as Revue des Revues Scientifiques.

REVUE DES REVUES SCIENTIFIQUES. *Paris.*
1901. Continues Revue des Revues d'Histoire Naturelle.

REVUE DES SCIENCES NATURELLES. **1872–85.** *Paris, Montpellier.*

REVUE DES SCIENCES NATURELLES. *See* VÍESTNIK ESTESTVOZNANÍÍA. *St. Petersburg.*

REVUE DES SCIENCES NATURELLES APPLIQUÉES. *See* SOCIÉTÉ NATIONALE D'ACCLIMATATION DE FRANCE; Bulletin.

REVUE DES SCIENCES NATURELLES DE L'OUEST. (**Institut International de Bibliographie Scientifique.**) **1891–7.** *Paris.*

REVUE SUISSE DE ZOOLOGIE. *Geneva.*
1893–*date.* Continues Recueil Zoologique Suisse.

REVUE DE ZOOLOGIE PURE ET APPLIQUÉE. **1871–5.** *Paris.*

REVUE ZOOLOGIQUE. *See* REVUE ET MAGASIN DE ZOOLOGIE PURE ET APPLIQUÉE. *Paris.*

REVUE ZOOLOGIQUE AFRICAINE. (**Cercle Zoologique Congolais.**) **1911**–*date.* *Brussels.*

REVUE ZOOLOGIQUE RUSSE. **1916**–*date.* *See* RUSSKÏÏ ZOOLOGICHESKÏÏ ZHURNAL.

REVUE DE ZOOTECHNIE. **1921**–*date.* *Paris.*

REY, JEAN GUILLAUME CHARLES EUGÈNE [1838–].
1872. Synonymik der Europäischen Brutvögel und Gäste. *8vo. pp. 16+257. index.* *Halle.*
Catalogue of 618 avian species, living and extinct, migratory and constant, that are or were found in Europe. Their distribution, synonymy, an extensive bibliography, index of authors and of systematic names are also given. The volume in hand is from the library of Prof. Reichenow.

[**REY,** J. G. C. E. (*contd.*)]

1888–1905. Die Eier der Vögel Mitteleuropas. *2 vols.* Vol. 1, text; vol. 2, plates. *4to. pp. 681. 128 col. pl.* *Gera-Untermhaus.*

The first edition—quite rare—issued in 30 parts, with most of the plates tinted bluish.

1912. Die eier der vögel Mitteleuropas. *2 vols. 4to. 128 col. pl. index.* *Gera-Untermhaus.*

The second, cheap, edition of a very important work on the eggs and nests of Middle European birds, the first edition of which was issued in 1889–1905. The two editions (including the beautiful plates) are practically identical.

n.d. Die Ornis von Halle. *8vo. pp. 37.* *Halle.*

A separately published catalogue, describing the birds seen about the city of Halle.

REYES Y PROSPER, VENTURA.

1886. Catálogo de las aves de España, Portugal é Islas Baleares. *8vo. pp. 109.* *Madrid.*

A brief descriptive list, in Latin and Portuguese, of the avifauna of Spain, Portugal, and the Balearic Islands. Published as a separate volume, this work was first contributed to the *Anal. de la Soc. de Hist. Nat.*, tomo xv, 1886.

REYGER, GOTTFRIED [1704–88].

1760. Verbesserte und vollständigere historie der Vögel. *See* KLEIN, J. T.

REYNOLDS, SIDNEY HUGH [1867–].

1897. The Vertebrate Skeleton. *8vo. pp. 16+559. illust.* *Cambridge.*

A valuable student's textbook, one of the Cambridge Biological Series.

1913. The Vertebrate Skeleton. *8vo. pp. 16+535.* *Cambridge.*

Second edition.

RHEA. Zeitschrift für die gesammte Ornithologie. Im Vereine mit Ornithologischen Freunden herausgegeben von Dr. Friedrich August Ludwig Thienemann.

1846–9. Hefte I–II. (All issued.) *8vo.* *Leipzig.*

1846. Erstes Heft. *pp. 128. col. front.*

1849. Zweites Heft. *pp. 230. col. front.*

This short-lived periodical contains a number of valuable papers by several early German naturalists—Naumann, Baldamus *et al.*

RHINEBECK BIRD CLUB.

1918–23. Year Book and Supplementary Notes.

RHOADS, SAMUEL NICHOLSON [1862–].

1894. A reprint of the North American zoology. *See* ORD, GEORGE.

1919. The passenger pigeon in Pennsylvania. *See* FRENCH, J. C.

RHODE ISLAND. Commissioners of inland fisheries.

1900–29. Annual reports. *10 vols. 8vo. pl. maps.* *Providence, R.I.*

RHODE ISLAND. Commissioners of Birds.

[1919]. Bird and game laws of Rhode Island revised to June 1, 1919. *16mo. pp. 38.* *Providence, R.I.*

The general and public laws of Rhode Island, with the open season under both Federal and State laws.

RHYS, ERNEST [1859–].

1929. Mainly horses, edited by Ernest Rhys and C. A. Dawson-Scott. *New York.*

RIBOISIÈRE, J. DE LA.

1910. Recherches organométriques en fonction du régime alimentaire sur les oiseaux. *8vo. pp. 2+194. figs. in text. index.* *Paris.*

A philosophical and experimental treatise on the effects of various diets on body weight, etc., of birds and other animals. A presentation copy from the author.

RICE, ELMER COOK.

1909. The national standard squab book . . . management of a successful squab plant. New ed. *8vo. pp. 11+303. 108 figs. 6 append.* *Boston.*

RICE, WILLIAM.

1884. Indian game; (from quail to tiger). *4to. pp. iv+221. 13 pl. (col.). 2 figs. append.* *London.*

The usual story of animal slaughter by a 'sportsman', with lists of 'game' animals in the Bombay Presidency. Nothing new.

RICH, WALTER HERBERT [1866–].

1907. Feathered game of the Northeast. *8vo. pp. xvi+432. 85 pl. index.* *New York.*

An American 'sportsman's' manual describing the most effective and modern methods of slaughtering birds.

1908. Feathered game of New England. *8vo. pp. xvi+432. 85 pl. index.* *London.*

One of that numerous class of books in which the letterpress and illustrations are identical with a former issue, the sole difference being in the title.

RICHARDSON, E. W.

1916. A veteran naturalist; being the life and work of W. B. Tegetmeier. *8vo. pp. xxiv+232. front. (portr.). 19 pl. 25 figs. 2 append. index.* *London.*

RICHARDSON, JOHN [1787–1865].

1828. *See* FRANKLIN, JOHN.

1828. *See* PARRY, W. E.

****** and SWAINSON,** WILLIAM.

1829–37. Fauna boreali-americana; or The zoology of the northern parts of British America. *4 vols. 4to. 110 pl. (72 col.).* *London.*

This important land voyage of Sir John Franklin is described so far as concerns the quadrupeds, 1829, *pp. 46+300, 28 pl.*, seen and collected by J. Richardson; birds, 1831, *pp. 63+524, 49 col. pl.*, by W. Swainson and J. Richardson; and fish and mollusca, 1836, *pp. 15+327, 33 pl.*, by Richardson and J. de C. Sowerby. The monograph on birds exists, also, with uncolored plates, such a copy being in the E.S.W. Library. Dr. Chas. Richmond's copy (with uncolored plates), now in the same library, differs from the usual issue in having as a subtitle, in advance of the regular title-page, the words | Fauna | Boreali-Americana. | Part Second, | containing The Birds.

1831. American ornithology. *See* WILSON, A. and BONAPARTE, C. L.

1835. *See* ROSS, *Sir* JAMES C.

****** and others.**

1839. The zoology of Captain Beechey's voyage . . . during a voyage to the Pacific and Behring's Straits in His Majesty's ship Blossom. *4to. pp. xii+180. 44 pl. (col.). 3 maps.* *London.*

The ornithology of this voyage was written by N. A. Vigors, pp. 15–40, with 12 colored plates.

1843. *See* DIEFFENBACH, ERNST.

****** and GRAY,** JOHN EDWARD.

1844–75. (The) zoology of the voyage of H.M.S. Erebus and Terror, during the years 1839–43. *2 vols. 4to. many col. pl.* *London.*

The mammals and reptiles were described by J. E. Gray and A. Günther; the fishes by J. Richardson, and the birds of New Zealand by Gray and R. B. Sharpe. Gray's original paper was published

in parts (as was all of the work) at dates which are not all definitely known. A complete list of the plates is given by Sharpe on pp. 38–9. A new title-page, or subtitle, is supplied for the ornithology and for most of the other sections of the work. This differs from the general title-page principally in the date, here given as 1846–75.

1848–1850. *See* ADAMS, ARTHUR.

1854. The zoology of the voyage of H.M.S. Herald . . . during the years 1845–51. The Vertebrata, including fossil mammals. 2nd ed. *4to. pp. 11+171. 33 pl.* *London.*

1859. *See* YARRELL, WM.

****** and others.**

?1868. (The) museum of natural history; being a popular account of the structure, habits, and classification of the various departments of the animal kingdom. *2 vols. 4to.* Vol. I, *pp. (4)+446. 76 pl. (16 col.). 137 figs. 2 indexes.* Vol. II, *pp. (2)+405. 71 pl. (7 col.). 235 figs. append. 4 indexes.* *London.*

The portion relating to birds, written by William S. Dallas, will be found in vol. I, pp. 229–432, with 31 plates, 7 colored, and 44 text-figures. The work was originally issued in parts at Glasgow [1859–62] with another edition in 1868.

RICHMOND, CHARLES WALLACE [1868–].

[1834–45.] Manuscript of ornithologic articles in the *L'Écho du Monde Savant. 4to. pp. 235.* [*Paris.*]

The Compiler and the E.S.W. Library of Ornithology are much indebted to Dr. Richmond who with his own hand carefully copied these articles, reviews, etc. that are of great importance to the bibliographer and student of vertebrate zoology. The copying has been legibly done and stands as evidence of the scribe's well-known meticulous industry.
As will be seen by consulting the bibliography in G. M. Mathews' *Birds of Australia*, pp. 473–7, 1919, there are few American naturalists that have directly and indirectly contributed so much to the literature of systematic ornithology as this erudite and well-known writer, yet his essays and treatises, having appeared almost exclusively in scientific journals and in Government serials and reports, necessarily make a meagre showing in this Catalogue. However, the Compiler knows from personal experience how much of Dr. Richmond's time and energies have been freely and generously expended in aiding his colleagues to prepare manuscript for their own publications—quite as useful work as writing books with independent titles.

1892. Fishes of Nicaragua. (*Forest and Stream*, June 9, 1892.)

Author's reprint.

1895. Check-list of North American Birds. 2nd ed. *See* AMERICAN ORNITHOLOGISTS' UNION.

1896. List of Birds of the District of Columbia. Pt. I. *8vo. pp. 2+12.* (All pub.) *Washington.*

A note on the cover, dated 1917, reports that the destruction of some of the printed pages and other difficulties attendant upon the efforts of an amateur with a private hand-press caused the author to abandon the project of completing the task of publication. 100 copies were made and distributed. The copy in hand is a present from the writer to the E.S.W. Library.

1902. List of generic terms proposed for birds during the years 1890 to 1900, inclusive, to which are added names omitted by Waterhouse in his 'Index generum avium'. *8vo.* *Washington.*

1908. Generic names applied to birds during the years 1901 to 1905 inclusive, with further additions to Waterhouse's 'Index generum avium'. *8vo.* (*Proceedings United States National Museum*, vol. XXXV, pp. 583–655.) *Washington.*

Author's excerpt. Of great importance to the student of systematic ornithology.

1908. The code of nomenclature adopted by the American ornithologists' union. [By a committee of the Union.] *See* AMERICAN ORNITHOLOGISTS' UNION.

1910. Check-list of North American birds. 3rd ed. *See* AMERICAN ORNITHOLOGISTS' UNION.

1917–27. Generic Names applied to Birds, with Additions and Corrections to Waterhouse's 'Index Genera Avium'. (*Proc. U.S. Nat. Museum.*)

Two papers, forming an author's separate of considerable systematic importance, supplementary to the lists of 1902 and 1908.

****** and RILEY,** J. R.

1923–4. A Partial Bibliography of Chinese Birds. North China Branch, Roy. Asiatic Soc. LIII and LIV.

Author's separate.

[1926]. Charles Wallace Richmond. Biographical sketch from Supplt. No. 4, Vol. XII, Mathews' *Birds of Australia. 4to. pp. 5.* [*London*].

Inscribed [to Robert Ridgway] 'To the first ornithologist I ever knew'.

RICHTER, JOHANN CHRISTOPH.

1743. Museum Richterianum. *folio. pp. 384. 16 pl.* *Lipsiae.*

RICHTER, REINHARD [1813–] and **UNGER,** F. J. A. N.

1856. Beitrag zur Paläontologie des Thüringer Waldes. *folio. pp. 100. 16 pl. text-figs.* *Wien.*

RICKER, EVERETT W.

1896. Notes on the birds [78 species] of Hull, Massachusetts. *pp. 36. 3 pl. 4 figs. append.* *Newtonville, Mass.*

RICKS, GEORGE.

1903. Natural history object lessons, manual for teachers. *12mo. pp. 352. 7 pl. 121 figs. append. index.* *Boston.*

RIDGEWAY, WILLIAM [1853–1926].

1905. Origin and Influence of the Thoroughbred Horse. *8vo. illust.* [O. 3804.] *Cambridge.*

RIDGWAY, ROBERT [1850–1929].

1873. Catalogue of the ornithological collection in the Museum of the Boston Society of Natural History. II. Falconidae. *8vo. pp. 66. append.* *Boston.*

This is almost the first of this famous naturalist's many contributions to science, practically all of which are shelved in the zoological libraries of McGill University.

****** and others.**

1874. A history of North American birds. *See* BAIRD, S. F., BREWER, T. M., and RIDGWAY, R.

1874. The Lower Wabash Valley, etc.

1875. Outlines of a natural arrangement of the Falconidae. *8vo.* *Washington.*

Author's reprint. A natural classification of the Falconidae based on Huxley's studies of the osteology of raptorial birds.

1875. *See* BAIRD, SPENCER FULLERTON.

[1877]. Ornithology. Author's edition extracted from vol. iv, *Report of Geological Exploration of the Fortieth Parallel.* Pt. III. Ornithology. *folio. 3 indexes.* *Washington.*

Part III is Ridgway's report (362 pp.) on the avifauna of the region lying between Sacramento, California, and the vicinity of Salt-Lake City, Utah, as investigated between June 1867 and August 1869. There is a note that a report on the same subject was prepared and stereotyped in 1870, but suppressed on account of unavoidable delay in its publication. The present report was then prepared, differing considerably from the original. The copy in hand is an autographed presentation from the author.

[**RIDGWAY,** R. (*contd.*)]

1878. Studies of the American Herodiones. Pt. I. Synopsis of the American genera of ardeidae and ciconiidae. Author's edition, extracted from the *Bulletin of the Survey*, vol. iv, no. 1. *8vo. pp. 33. 1 fig.* *Washington.*

1881. Nomenclature of North American birds chiefly contained in the United States National museum. Author's reprint. *8vo. pp. 94. index.* *Washington.*

The present catalogue is said by the author to be 'a revised edition, very materially modified, however', of his former catalogue, published in 1880, on pp. 163–246 of *Proc. U.S.A. Nat. Mus.*, but not issued separately. The present copy is from the Godman Library and is a presentation (autographed) from the author to F. Du Cane Godman. A second copy in the E.S.W. Library is from the P. L. Sclater Library, also an autographed present.

1883. Catalogue of the aquatic and fish-eating birds exhibited by the United States National Museum. Author's reprint. *8vo. pp. 46.* *Washington.*

1884. The water birds of North America. *See* BAIRD, S. F., BREWER, T. M., and RIDGWAY, R.

1886. A Nomenclature of Colors for naturalists, etc. *pp. 129. 17 col. pl.* *Boston.*

This is the earlier of the two color-index schemes invented by this noted naturalist for the exact description of plumage, fur, and other animal parts. The enlarged schema is now used for reference purposes in every well-equipped laboratory and museum and has done at least something towards a universal color index that both the scientific and commercial world so badly needs and so decidedly lacks.

1886. The code of nomenclature and check-list of North American birds. *See* AMERICAN ORNITHOLOGISTS' UNION.

1887. A manual of North American birds. *8vo. pp. 4+631. 124 pl. append. index. Philadelphia.*

A complete account of the birds of North America reduced to the smallest compass possible. A second, enlarged edition appeared in 1896, and a fourth in 1915.

**** and **FORBES,** STEPHEN A.

1889–[95]. Natural history survey of Illinois. Pt. I. The Ornithology of Illinois. Descriptive catalogue by Robert Ridgway. Pt. II. Economic Ornithology by S. A. Forbes. *2 vols. 8vo.* Vol. I, *pp. viii+520. front.* (*col.* by Ridgway). *32 pl. bibliogr. index.* Vol. II (wanting in this set). * *Springfield, Ill.*

Vol. II, pt. II, on economic ornithology by S. A. Forbes was not published.
The present set contains vol. I only, which is from the Godman Library, and has the (rare) colored plate of the Meadow-lark by R. Ridgway, as well as being an autographed presentation copy to F. Du Cane Godman from the author.

1891. Directions for collecting birds. (Part A of *Bulletin of the United States National Museum*, no. 39.) Author's reprint. *8vo. pp. 27. 9 figs. T. of c.* *Washington.*

1896. A manual of North American birds. 2nd ed. *8vo. pp. xiii+653. 124 pl. append. index.* *Philadelphia.*

1901–19. The birds of North and Middle America; a descriptive catalogue of the families, genera, species and subspecies of birds known to occur in North America, from the Arctic lands to the Isthmus of Panama, the West Indies and other islands of the Caribbean Sea, and the Galapagos Archipelago. Vols. I–VIII. *4to.* *Washington.*

The most noteworthy of all the systematic works on North and Middle American ornithology, and by far the most complete treatise in the literature of the subject. It was unfinished at the author's death. Each volume is provided with an index of all previous volumes.
Vol. I, 1901, *pp. xxx+715. 20 pl.*
Vol. II, 1902, *pp. xx+834. 22 pl.*
Vol. III, 1904, *pp. xx+801. 19 pl.*
Vol. IV, 1907, *pp. xxxii+973. 34 pl.*
Vol. V, 1911, *pp. xxxiii+859. 33 pl.*
Vol. VI, 1914, *pp. xx+882. 36 pl.*
Vol. VII, 1916, *pp. xiii+543. 24 pl.*
Vol. VIII, 1919, *pp. xvi+852. 34 pl.*
As a lesson for the research student of the future in patient industry and as an exhibition of unusual knowledge of the subject the original manuscript of the first four volumes of this famous work is preserved as one of the treasures of the E.S.W. Library of Ornithology, a joint presentation from the learned author and the Smithsonian Institution. The McGill Library is also indebted to Dr. Chas. W. Richmond for his courtesy in assembling and rearranging the MS. for the binder.

1909. *See* KNOWLTON and RIDGWAY.

1912. Color standards and color nomenclature. 2nd ed. *8vo. pp. 8+44. 53 col. pl.* *Washington.*

A well-known and indispensable color scheme for ornithologists. This second edition is in all respects a better and more extended work than the first issue.

**** and **FORBES,** STEPHEN A.

1913. The ornithology of Illinois. *2 vols. 8vo.* Vol. I, *pp. viii+520. 32 pl. bibliogr. index.* Vol. II, *pp. (4)+282. 33 pl. index.* *Bloomington, Ill.*

A reprint of the first edition (with vol. II completed) issued in 1889–95. It differs in the wording of the title-pages, and in having no colored portrait of the Meadow-lark.

[1915]. A manual of North American birds. 4th ed. *8vo. pp. xiii+653. 124 pl. append. index.* *Philadelphia.*

**** and **WOOD,** CASEY A.

1922. The story of 'Bird Haven' [Sanctuary] as told by Robert Ridgway with a few comments by Casey Wood. *4to. 33 ff. portr. pl. photo.* *Coronado, Calif.*

A collection of printed, typewritten, and MS. letters in connection with the above, the whole contained in a portfolio. The article on Bird Haven is reprinted from the *Olney Daily Mail*, August 23, 1920, with a print and photograph attached.

1923. Bird Haven, Olney, Illinois. Typescript. *folio. pp. (46)+(2).*

A typewritten manuscript given to the Compiler by the author. It is an account of Bird Haven, a wildwood sanctuary of about 18 acres, established by Robt. Ridgway as a preserve for native trees, shrubs, and other plants of Illinois, as well as a safe refuge for native birds.

(THE) RIDGWAY ORNITHOLOGICAL CLUB OF CHICAGO.

1883–7. Bulletin, nos. 1–2. *2 vols. 8vo. Chicago.*

Several important items appeared in this short-lived periodical.

RIEDEL, G. F. and **KIRSCHNER,** F.

[1750]–86. Tabulae regni animalis, omnes VI classes, etc. *4to. 85 pl. 1,288 figs.* *Augsburg.*

RIESENTHAL. OSKAR VON [?1831–98].

1876. Die Raubvögel Deutschlands und des angrenzenden Mitteleuropas. *2 vols. 8vo. pp. xxi+522. 6 pl. T. of c. atlas. 60 col. pl.* *Cassel.*

A subscription work issued in parts, describing middle European birds of prey, how to hunt them and how to use them in hunting other birds (falconry). The atlas of rather fine chromolithographs depicts on 60 plates most of the species systematically described in the text. The nomenclature has, however, been criticized as not up to date. The E.S.W. Library has two issues, both of text, and three atlases, one copy of the latter in the undated, original wrappers.

1876. Die Raubvögel Deutschlands und des angrenzenden Mitteleuropas. *2 vols. 8vo. pp. [15]+xxi+522. atlas. folio. 60 pl. mounted.* *Cassel.*

This is the printing with the introductory list of subscribers and the dedication to the King of Prussia. It is otherwise identical with the usual text. The Atlas in this issue has the plates mounted on large-sized cardboard, with a special title-page. The impressions (chromolithographs) are clearer than in the smaller edition.

1889. Die Kennzeichen unserer Raubvögel nebst kurzer Anleitung zu Jagd und Fang und einem Anhang, die rebenartigen Vögel und Würger enthaltend. 4th ed. *4to. pp. 6+68. 1 col. pl. 22 text-figs. T. of c.* *Berlin.*

A short but excellent account of Middle European birds of prey as part of the author's larger work, and an abbreviated manual of his *Raubvögel Deutschlands*. The four editions are practically identical, the first one having appeared in 1884.

RIGA. Zoologijas Instituta.
1921–*date.* Darbi.

RIJKSMUSEUM VAN NATURLIJKE HISTORIE. *See* SCHLEGEL, H., 1862–1908.

RILEY, JOSEPH HARVEY [1873–].
1905. Birds of the Bahama Islands. (The Geographical Society of Baltimore.) *pp. 347–68.* *Baltimore.*
1930. Birds from the small islands off the Northeast Coast of Dutch Borneo. (Author's reprint. *Proc. U.S. Nat. Mus.*, vol. 77.) *8vo. pp. 23. map.* *Washington.*

A very interesting review of 42 forms by an authority on the avifauna of Borneo.

RINGIUS, GUSTAF ERLAND.
1874. Jemförande framställning af benbyggnaden hos Fulica, Grus, Ciconia och Ardea. (Upsala University thesis.) *8vo. pp. 6+74.* *Upsala.*

RINTOUL, LEONORA J. and **BAXTER,** E. V.
1928. The geographical distribution and status of birds in Scotland. *See* BAXTER, E. V. and RINTOUL, L. J.

RIO DE JANEIRO. *See* MUSEU NACIONAL DE RIO DE JANEIRO.

RIOUCOUR, *Comte* DE. *See* ANONYMOUS, 1829. Catalogue des Oiseaux, etc.

RISTORI, G. *See* FLORENCE. Reale Istituto, 1877.

RISVEGLIO ZOOTECNICO. 1889–91? *Reggio-Emilia.*

RITCHIE, ARTHUR DAVID [1891–].
1928. The comparative physiology of muscular tissue. *8vo. pp. 12+111.* *Cambridge.*

RITCHIE, JAMES [1882–].
1920. The influence of man on animal life in Scotland; a study in faunal evolution. *8vo. pp. xvi+550. 90 figs. 8 maps. index.* *Cambridge.*

RITCHIE, JOHN W.
1920. Zoology: New World Science Series. *See* COCKERELL, THEODORE D. A.

RITGEN, F. A.
1826. Versuch einer Natürlichen eintheilung der Vögel. *4to. pp. 25.*

An original series of suggestions for a systematic, Latinized classification of birds based chiefly on their osteology and other anatomical details. Tract from the library of Prof. Cabanis.

RIVES, WILLIAM C.
1890. A catalogue of the birds [305 species] of the Virginias. *8vo. pp. 100. 1 map (col.). index.* *Newport, R. I.*

RIVIERA SCIENTIFIQUE. (Association des Naturalistes de Nice et des Alpes-Maritimes, Nice.) 1914—*date.* *Nice.*

RIVIERE, B. B.
1930. A History of the Birds of Norfolk. *16 photo. pl. 1 map.* *London.*

A supplement to Stevenson's treatise, with a good account of the shore-birds and marsh-birds.

RIVISTA ITALIANA DI ORNITOLOGIA.
1911–*date.* (*See* REVISTA, etc., p. 535).

RIVISTA ITALIANA DI PALEONTOLOGIA. 1895–*date.* *Bologna.*

RIVISTA DI ZOOTECNIA. 1924–*date.* *Portici.*

RIVOLI, *Duc* DE. *See* MASSÉNA, A.

ROBB, WALLACE HAVELOCK.
[1927]. The quill and the candle; poems of birdland in Canada. *8vo. pp. [10]+54. front. 7 pl. T. of c.* *Toronto.*

An attractive little book. Of the illustrations the first three are from photographs by the author, the remaining five from photographs of the original water-colors in the Wallace Havelock Robb Collection of paintings of Canadian Birds by Major Allan Brooks, now in the Royal Ontario Museum of Zoology.

ROBBINS, REGINALD C.
[1901]. Bird-killing as a method in ornithology. *8vo. pp. 16.* *Cambridge, Mass.*

In this essay the author gives his reasons for the extreme position he has taken as regard the killing of birds for scientific purposes, a position which he admits is not likely to meet with the sympathy of ornithologists in general.

ROBELS, CARL.
1881. Ein Beitrag zur Characteristik der Huxley'schen Raubvögel-Familien. *8vo. pp. 28+2.* *Bonn.*

A fairly full discussion, with the comparative osteology, of Huxley's division of birds of prey. A Bonn University inaugural thesis.

ROBERT, LÉO PAUL and **RAMBERT,** E.
1878. Les oiseaux dans la nature, &c. *See* RAMBERT, E. and ROBERT, L. P.

******** and **HARTING,** J. E.
1880. Glimpses of bird life pourtrayed with pen and pencil, &c. *See* HARTING, J. E. and ROBERT, L. P.

ROBERT, LOUIS EUGÈNE [1806–].
1838–51. Voyage en Islande . . . sur la Recherche. *See* GAIMARD, JOSEPH PAUL.

ROBERT, NICOLAS [1610–84].
1676. Receüil d'Oyseaux les plus rares tirez de la Menagerie Royalle du Parc de Versailles. *folio. 23 pl.* *Paris.*

This rare little bird atlas of copper-plate engravings is generally found in two small volumes; in the present instance the two parts (first printing and *suite*, both dated 1676) are bound together. The present copy is from the library of the Earl of Jersey, Osterley Park.

ROBERTS, A. J. R.
1903. The [British] bird book. *12mo. pp. 13+136. 24 pl. index.* *London.*

ROBERTS, CHARLES GEORGE DOUGLAS [1860–].
1924. They who walk in the wilds. *8vo. pp. 212.* *New York.*

Legends and stories of animal life.

ROBERTS, Howard Armstrong [1885–].
1918. Commercial poultry raising. *8vo. pp. xix+582. 341 figs. index.* *Philadelphia.*

ROBERTS, Thomas Sadler [1858–].
1919. Review of the Ornithology of Minnesota. *12mo. pp. 10. illust. index.* *Minneapolis.*

ROBERTS, W. J.
n.d. Zoo folk interviewed. *8vo. pp. viii+215. 26 pl. index.* *London.*

ROBIEN, Paul.
1920. Die Vogelwelt des Bezirks Stettin. *8vo. pp. 112. index.* *Stettin.*

ROBINEAU-DESVOIDY, André Jean Baptiste [1799–1857].
1828. Recherches sur l'organisation vertébrale des crustacés, des arachnides et des insectes. *8vo. pp. 78+228. pl.* *Paris.*
Autographed letter of author inserted.

ROBINSON, Edward Kay [1857–] and **FINN,** F.
[**1922–3**]. Birds of our country. *See* Finn, F. and Robinson, E. K.

n.d. To know British birds at sight. *18mo. pp. 128. text-figs. index.* *London.*

ROBINSON, Herbert C. [? 1867–1929].
1903. *See* Annandale, T. N.

1927. The birds of the Malay Peninsula; a general account of the birds inhabiting the region from the Isthmus of Kra to Singapore with the adjacent islands. Vol. I. The commoner birds. (Federated Malay States Government.) *8vo. pp. 50+329. front. (map). 25 pl. (col.). bibliogr. index.* *London.*
The present volume forms the first of five, intended to cover the 700 species of birds within the limits of the Malay Peninsula. No one was better qualified to write on the subject than the author with his 20 years' experience of Malaya as Director of the Federated Malay States Museum. The order of the birds is that of Sharpe's hand-list with scientific, Malayan, and English names, concise descriptions, and accounts of the ranges both within and without the Peninsula, as well as excellent notes on nidification and general habits, etc. The fine colored plates are by Grönvold and they add greatly to the value of the work.

ROBINSON, John Henry [1863–].
[**1913**]. Our domestic birds; elementary lessons in aviculture. *8vo. pp. x+317. 236 figs. index.* *Boston.*

ROBINSON, L.
1898. Wild Traits in Tame Animals: Familiar Studies in Evolution. *8vo.* *London.*

ROBINSON, Philip Stewart [1847–1902].
1883. The poet's birds. *8vo. pp. x+490. T. of c.* *London.*
1894. Birds of the wave and woodland. *8vo. pp. 224. 17 pl. 27 text-figs. index.* *London.*

ROBINSON, Wirt.
1895. A Flying Trip to the Tropics. Record of an ornithological visit to the United States of Colombia, West Indies, etc. *8vo. pp. 10+194. 4 col. pl. 1 col. map. text-figs.* *Cambridge, Mass.*

ROBSON, J. (?).
1776. Some memoirs of the life and works of George Edwards . . . [intended to serve as a supplement to George Edwards' *Natural History*]. *4to. pp. 38.* *London.*

ROBSON, John.
1910. Canaries, hybrids and British birds in cage and aviary. *4to. pp. x+424. 18 pl. (col.). 209 figs. index.* *London.*

ROBSON, Thomas [1864–].
1896. Birds [137 species] of the Derwent Valley. *8vo. pp. 64. 13 figs. index.* *Consett.*

ROCHEFORT, César de.
1716. Histoire naturelle et morale des îles Antilles de l'Amérique; avec un vocabulaire Caraïbe. 2nd ed. *8vo. pp. 34+583.* *Amsterdam.*
The first edition of this popular work was published anonymously in 1658. The copy in hand was probably one of a third or fourth reprinting instead of the second. The *dernière édition*, a quarto with contents identical with those of the present volume, was issued from Rotterdam in 1681!

ROCHESTER ACADEMY OF SCIENCE. *Rochester, N.Y.*
1886? Bulletin.

1889–*date*. Proceedings.

ROCHESTER NATURALIST. (**Rochester Naturalists' Club.**) **1883–*date*.** *Rochester, England.*

RODD, Edward Hearle [1810–80].
1880. The birds of Cornwall and the Scilly islands; edited with an appendix and memoir by J. E. Harting. *8vo. pp. lvi+320. front. (portr.). map. append. index.* *London.*

RODRIGUEZ, ZOOLOGY OF. *See* Royal Society of London, 1879.

RODWAY, James [1848–1925].
1894. In the Guiana forest; studies of nature in relation to the struggle for life. With introduction by Grant Allen. 3rd ed. *8vo. pp. xxiii+242. 16 pl. T. of c.* *London.*
A faithful picture of the tropical forest, as well as of the beasts, birds, reptiles, and insects that haunt it in their fight for existence. Presentation copy to Dr. Casey Wood with the author's autograph.

ROEBUCK, William Denison and **CLARKE,** W. E.
1881. A handbook of the vertebrate fauna of Yorkshire. *See* Clarke, W. E. and Roebuck, W. D.

ROEMER, August [d. 1899].
1863. Verzeichniss der im Herzogthum Nassau insebesondere in der Umgegend von Wiesbaden vorkommenden Säugetheire und Vögel. *8vo. pp. 76. 2 tab.* *Wiesbaden.*

ROEMER, Ferdinand [1818–91].
1876. Lethaea palaeozoica; oder, Beschreibung und Abbildung der für die einzelnen Abtheilungen der palaeozoischen Formation bezeichnendsten Versteinerungen. *2 vols. text and atlas. 4to.* *Stuttgart.*

ROEMER, Fritz [1866–1909] and **SCHAUDINN,** F. R.
1900–10. Fauna Arctica, etc. *5 vols. 4to.* *Jena.*
This very important report of the German Expedition to Spitzbergen (and other polar areas) in 1898 filled five large volumes to 1910 and was then unfinished. The publication thus far was mostly concerned with invertebrates, but in vol. II E. Ehrenbaum gives an account of arctic fishes; and H. Schalow (in vol. IV) a description of the birds. A memorial of the deceased editors is printed in vol. V by A. Brauer. Fritz Richard Schaudinn's life dates are 1871–1906. Both men were noted naturalists who were cut off all too early

ROEMER, JOHANN JACOB [1763–1819].

1797. Anleitung alle Arten natürlicher Cörper, als: Säugethiere, Vögel, Amphibien, Fische. *4to. 8vo. pp. 6+255. 3 pl.* *Zürich.*

A German translation of the very rare *editio princeps* of Edward Donovan's *Instructions for Collecting and Preserving various subjects of Natural History*, London, 1794. Both the original and the present German edition are not listed in the *Cat. Br. Mus.* (*Nat. Hist.*).

ROEMER, K.

1905. Die landwirtschaftliche Geflügelhaltung. 3te Aufl. neubearbeitet von August Fehsenmeier und Hermann Doll. 3rd ed. *8vo. pp. 6+106. 10 pl.* *Berlin.*

ROEPER, OSCAR.

1895. Das elastische Ruder. Ein Beitrag zur Theorie des Vogelflugs. *4to. pp. 38. 17 text-figs.* *Hamburg.*

A study of the mechanics of bird flight accompanied by explanatory diagrams. The copy in hand was presented by the author to Prof. Reichenow and is from the library of the latter.

ROESEL VON ROSENHOF, AUGUST JOHANN [1705–59].

1758. Historia naturalis Ranarum nostratium, etc. *folio. pp. 8+6+115. 24 col. pl. and engr. title.* *Nürnberg.*

The present volume is one of the classics of amphibiology. The illustrations are of the finest and the whole work is admirably done. The title and text appear both in Latin and German and there is a preface by A. von Haller—altogether a very valuable, early contribution to the literature of the batrachia.

ROGET, PETER MARK [1779–1869].

1834. Animal and vegetable physiology, considered with reference to natural theology. *2 vols. 8vo.* (Bridgewater Treatises.) *London.*

ROHWEDER, J.

1875. Die Vögel Schleswig-Holsteins. und ihre Verbreitung in der Provinz nebst einer graphischen Darstellung ihrer Brutverältnisse. *4to. pp. 24.* *Husum.*

1902. Unsere Schnepfen. *4to. pp. 2+63.* *Gera-Untermhaus.*

ROLLAND, EUGÈNE [1846–1909].

1877–83. Faune populaire de la France. Noms vulgaires, Dictons, Proverbes, Contes et Superstitions. *6 vols. 8vo.* *Paris.*

ROLLESTON, GEORGE [1829–81].

1870. Forms of animal life; being outlines of zoological classification based upon anatomical investigation. *8vo. pp. 168+268. 12 pl. index.* *Oxford.*

**** and **JACKSON,** W. HATCHETT.

1888. Forms of animal life; a manual of comparative anatomy with descriptions of selected types. 2nd ed. *8vo. pp. 32+937. 14 pl. index.* *Oxford.*

ROMANES, GEORGE JOHN [1848–94].

1883. Animal Intelligence. 3rd ed. *8vo. pp. 14+520. text-figs.* *London and New York.*

The first edition of this well-known work appeared in 1879; the second formed vol. XLI of the International Scientific Series.

1892–5. Darwin, and after Darwin, an exposition of the Darwinian theory and a discussion of post-Darwinian questions. *3 vols. 8vo. illust.* *London.*

An American two-volume edition, 1892–5, was also published in Chicago.

ROME. Istituto Zoologico.

1923–*date*. Bollettino.

ROMMEL, PETRUS.

1680. De foetibus leporinis extra uterum repertis. *Ulm.*

RONDELETIUS, GULIELMUS [1507–66].

1554–5. G. R. . . . Libri de Piscibus Marinis, etc. *2 vols. folio. illust.* *Lugduni.*

The life and works of this famous grandfather of modern ichthyology have been considered in this *Introduction*. The literature, produced alone and in conjunction with others, based on his faunal treatises, is abundant; much of it will be found in this *Catalogue*.

1558. L'Histoire entière des Poissons. *folio. 300 engr. figs.* A French translation (probably of Boussuet's edition), published at (?) Lyons.

1558. *See* BOUSSUETUS, FRANCISCUS.

ROOD, E. IRENE.

1896. Papers presented to the World's congress on ornithology. Edited by Mrs. E. Irene Rood, Chairman Woman's Committee of the Congress under the direction of Dr. Elliott Coues, President of the Congress. *pp. 208. T. of c.* *Chicago.*

The division of ornithology of the Woman's Branch, World's Congress Auxiliary, Columbian Exposition, 1893, Chicago, was attended by numerous American and foreign visitors, many of whom presented papers, reprinted in this volume.

ROOIJ, NELLY DE.

1915–17. The Reptiles of the Indo-Australian Archipelago. I. Lacertilia, Chelonia, Emydosauria. II. Ophidia. *2 vols. 8vo. pp. 14+384+ pp. 14+334.* *Leiden.*

ROOSEVELT, KERMIT. *See* ROOSEVELT, THEODORE (2nd) and ROOSEVELT, KERMIT, 1929.

ROOSEVELT, ROBERT BARNWELL [1829–1906].

1866. Florida and the Game Water Birds, etc. *8vo. illust.* *New York.*

The first edition; several reprints have since appeared.

1884. Florida and the game water-birds of the Atlantic coast and the lakes of the United States. *8vo. pp. 443. 11 pl. 5 figs. append.* *New York.*

1884. Game Fish of the Northern States. *8vo. illust.* *New York.*

ROOSEVELT, THEODORE [1858–1919].

1886. Hunting Trips of a Ranchman. Sketches of Sport on the Northern Cattle Plains. *8vo. pp. 16+347. 26 pl.* *London.*

One of this sportsman-naturalist's early books in which many North American animals are depicted.

1893. The Wilderness Hunter. Account of the Big Game of the United States and its chase. *8vo. pp. 16+472. illust. index.* *New York.*

A well-written, popular work on the subject, furnishing much original information about many North American mammals. The present volume is from the library of J. G. Millais.

**** and **others.**

1902. The Deer Family. *8vo. pp. 12+334. 20 pl. 5 maps.* *London and New York.*

One volume of the American Sportsman's Library with, in addition to an essay by Ex-President Roosevelt on the Deer and Antelope of North America, one on the Deer and Elk of the Pacific Coast, by T. S. Van Dyke; on the Caribou, by D. G. Elliot; and on the Moose, by A. J. Stone.

1905. Outdoor Pastimes of an American Hunter. *8vo. pp. 12+369. illust.* *London.*

One of several books on hunting by this noted naturalist.

[**ROOSEVELT,** T. (*contd.*)]
1905. Wild wings. *See* JOB, H. K.

1911. Revealing and Concealing Coloration in Birds and Mammals. *8vo. pp. 119–231. append.* *New York.*
Author's reprint. A contribution to the controversial literature of this much discussed subject.

1916. A book-lover's holidays in the open. *8vo. pp. 10+373. 2 col. pl. 1 fig. 2 append. New York.*

1919. Letters to his children; edited by J. B. Bishop. *New York.*

**** and **MINOT,** H. D.
1925. The summer birds of the Adirondacks in Franklin County, N.Y. . . . and some of the birds of Oyster Bay, Long Island. *8vo. pp. (6)+4+(4). portr.* *New York.*
A privately printed facsimile of the rare 1877 edition—a catalogue of 97 species based upon observations made by the authors in August 1874 and 1875, and June 22 to July 9, 1877. The Oyster Bay record is of 17 species. The present copy is No. 69 of a limited edition of 200 copies.

ROOSEVELT, THEODORE (2nd) and **ROOSEVELT,** KERMIT.
1929. Trailing the Great Panda [in Yunnan and Szechuan]. *8vo. pp. 12+278. col. pl. map. index.* *New York.*
An account of many North China animals as well as of the bear-like mammal, *Aeluropus Melanoleucus*, especially in search of which the expedition was outfitted.

ROOSEVELT WILD LIFE ANNALS. **1926–30.** *New York.*

ROOSEVELT WILD LIFE BULLETIN. **1921**–*date.* *New York.*

ROOY, N. DE. **1906.** *See* WICHMANN, C. E. A.

RÖPER, PAUL M. and **LACKOWITZ,** WILHELM.
1884. Unsere Vögel, Bilder aus dem Vogelleben Nord-deutschlands und seiner Nachbarländer. *4to. pp. 8+621. 204 text-figs. index.* *Berlin.*

RÖRIG, G.
1899. Magenuntersuchungen land- und forst-wirtschaftlich wichtiger Vögel. *pp. 85.* *Berlin.*
Author's excerpt, a useful study of the stomach contents of 1,735 species of birds with especial relation to economic ornithology. The present copy is from Prof. Reichenow's library, and was a gift to him from the writer.

ROSENBERG, C. B. HERMANN VON [1817–88].
1867. Reis naar de Zuidoostereilanden, etc. *8vo. pp. 37+125. 7 col. pl.* *'s Gravenhage.*

1875. Reistochten naar de Geelvinkbaai op Nieuw-Guinea in 1869–70. *4to. 20 pl., some col., of birds.* *'s Gravenhage.*
Birds and other fauna of New Guinea, Andai, etc. An important zoological item.

1878. Der Malayische Archipel. *8vo. pp. 16+615. 8 pl. text-figs.* *Leipzig.*
A German translation of the original Dutch monograph, with notes, by P. J. Veth.

ROSENHAUER, WILHELM GOTTLOB [1813–81].
1856. Die Thiere Andalusiens, etc. *8vo. pp. 8+429. 3 pl.* *Erlangen.*
The author claims the discovery and description of 249 hitherto undescribed genera and species of Spanish fauna, including insect forms.

ROSENIUS, PAUL.
1913–19. Sveriges fåglar och fågelbom. *folio. pp. 362. 105 photos.* *Lund.*
A semi-popular, well-illustrated work on Swedish birds, their distribution, nests, and nesting habits. The present collection (from Prof. Reichenow's library) does not extend beyond 21 parts (? 1919), and the Compiler has been unable to find an account of the total publications to date.

ROSENSTOCK, RUDOLF.
1895. Heligoland as an ornithological observatory. *See* GÄTKE, H.

1901. *See* SCHMEIL, F. O.

ROSENTHAL, DORIS.
n.d. Pertaining to birds. [*50 pl. in portfolio.*] *New York.*
A collection of 50 plates (14×11 in.) in black and white embodying bird subjects from designs on old Italian, Japanese, Russian, Indian, Javanese, Persian, Siberian, Peruvian, Sicilian, Grecian, German, Chinese, and Venetian vases, lace, pottery, etc., from the large museums of the world. The Compiler has made a somewhat similar collection of photographs, with notes. *See* WOOD, C. A. BIRD PORTRAITS IN ANCIENT AND MEDIEVAL ART, 1931.

ROSENTHAL, FRIEDRICH CHRISTIAN [– 1829].
1812–26. Ichthyotomische Tafeln. *6 pts. text. 4to. atlas in ob. folio. 27 pl.*
This *editio princeps*, with all the plates, is quite a rare publication It is not listed in the *Cat. Br. Mus.* (*Nat. Hist.*). A second edition was published in 1839.

RÖSLER, JOHANN CARL.
1903. Nutzen und schaden der vögel. *See* HERMAN, Ó.

ROSS, ALEXANDER MILTON [1832–97].
1871. Catalogue of Canadian birds [99 species], insects, and squirrels, collected in the vicinity of Toronto. *8vo. pp. 10.* *Toronto.*

1871. The Birds of Canada; with descriptions of their plumage, habits, etc. *8vo. pp. 132.* *Toronto.*
First edition, very rare. Not in *Cat. Br. Mus.* (*Nat. Hist.*).

1872. The birds of Canada: with descriptions of their plumage, habits, food, song, nests, eggs, times of arrival and departure. 2nd ed. *8vo. pp. xvi+152+(6). 38 figs. index.* *Toronto.*

1872. A classified catalogue of the birds of Canada; including every species known to visit the several provinces which now form the Dominion of Canada. *8vo. pp. 9.* *Toronto.*

ROSS, E. DENISON.
1909. A polyglot list of birds in Turki, Manchu and Chinese. Edited with Identifications, Notes, and Indexes. *4to. pp. 253–340.* *Calcutta.*
This monograph is a Memoir (Vol. II, No. 9) of the Asiatic Society of Bengal, with a separate title-page indicating the contents.

ROSS, JAMES CLARK [1800–62].
1828. *See* PARRY, *Sir* W. E.

1835. (Zoology of the) Narrative of a Second Voyage in search of a North-west Passage, etc. *2 vols. 4to.* *London.*
It is the Appendix that contains an account of the vertebrates discovered on this voyage, the Mammals, Birds, and Fish by J. C. Ross; Salmones by J. Richardson. The expedition was in charge of Sir John Ross. *See also* ROSS, JOHN.

ROSS, JOHN [1777–1856].
1819. A voyage of discovery [in the] ships Isabella and Alexander, for the purpose of exploring

Baffin's Bay, and inquiring into the probability of a north-west passage. *4to. pp. (6)+39+252+144. 25 pl. (15 col.). 5 maps. 9 figs. append.* *London.*

The description of the animals found during this notable voyage will be found in the *Zoological memoranda*, Appendix No. II.

1835. Narrative of a Second Voyage in search of a North-west Passage, etc. *2 vols. 4to. illust.* *London.*

Mammals, birds, and fishes were described by J. C. Ross; Salmones by J. Richardson.

ROSS, W.
1908. The Works of Aristotle. *See* ARISTOTLE.

ROSSANDER, C. P.
1797. Cogita de Instinctu animalium. *Lund.*

ROSTOCKER ZEITUNG. *See* NATURFORSCHENDE GESELLSCHAFT ZU ROSTOCK.

ROSTOCK UNIVERSITÄT. Zootomisch-Physiologisches Institut.
1840? Bericht.

ROTH, SANTIAGO.
1903. Los ungulados sudamericanos. In Spanish and German. *folio. pp. 36. 4 pl. text-figs.* *La Plata.*

ROTH, WALTER E. **1922.** *See* BERKEL, ADRIAAN VAN.

ROTHSCHILD, LIONEL WALTER, *Baron* [1868–].
1893–1900. The avifauna of Laysan and the neighbouring islands: with a complete history to date of the birds of the Hawaiian possessions. *folio. pp. 34+320+21. 83 col. pl. index.* *London.*

A comprehensive account of the birds of Laysan and nearby islands. A bibliography and (supplement) a *Resumé of Palmer's Diary* form part of the text. This important brochure was issued in three parts, the edition being limited to 250 copies.

1898. Paradiseidae. *4to. pp. 6+52. text-figs.* *Berlin.*

Author's excerpt from *Das Tierreich*, Lief. 2.

1900. A monograph of the genus Casuarius. *4to. col. pl.* *London.*

Author's reprint from the *Trans. Zool. Soc. London.* A beautifully illustrated treatise.

1907. Extinct birds. An attempt to unite in one volume a short account of those birds which have become extinct in historical times—that is, within the last six or seven hundred years. To which are added a few which still exist, but are on the verge of extinction. *4to. pp. 29+244. 45 col. pl.* *London.*

The highest authority on the subject, beautifully illustrated with drawings by Keulemans, Grönvold, Lodge, and other famous artists.

ROTTERDAM. Nederlandsche Dierkundige Vereeniging.
1875–1930. Tijdschrift. Later volumes also issued from The Hague and Leiden.

ROTZELL, W. E.
1895. Birds of Narberth, Pa., and vicinity [108 species]. *8vo. pp. 8.* *Narberth, Pa.*

ROUEN. Muséum d'Histoire Naturelle.
1862–1920. Actes.
1924–*date*. Actes—new series.

ROUGHLEY, T. C.
1916. Fishes of Australia and their Technology. *8vo. 70 col. pl.*

ROUGIER, EMMANUEL.
1914. Île Christmas South seas (Océanie); birds, fishes, etc. *8vo. pp. 158. 65 figs. 3 maps (1 fold.).* *Brioude.*

An interesting account of Christmas Island and its faunae, written in a mixture of French and English.

ROULE, LOUIS [1861–].
1898. L'Anatomie comparée des Animaux basée sur l'embryologie. *2 vols. 4to. pp. 36+1971.* *Paris.*

An erudite treatise with a full bibliography to date of publication.

1911–24. *See* CHARCOT, J. B. A. E.

ROUX, JEAN LOUIS FLORENT POLYDORE [1792–1833].
1825–30. Ornithologie provençale; ou, description avec figures coloriées de tous les oiseaux qui habitent constamment la Provence, ou qui n'y sont que de passage. *2 vols. 4to.* Vol. [I], 1825, *pp. 55+388. 294 pl. (293 col.).* Vol. II, 1830, *pp. 48. 131 col. pl.* *Paris and Marseille.*

This treatise, though unfinished, may be regarded as essential to a thorough study of the avifauna of Southern France. Systematic treatment of the subject is well carried out; synonymy (including vernacular names), generic and specific characters, habits, and distribution are all fully treated. The work is rare in any state but especially so with the full quota of 425 plates.

ROVARTANI LAPOK. 1884–1918. *Budapest.*

ROWE, SAMUEL [1793–1853].
1856. A perambulation of the antient and royal forest of Dartmoor and the Venville precincts . . . with the Natural History. *8vo. pp. 4+362. 11 pl. 7 append. index.* *Plymouth.*

The first edition was published in 1848, and a third in 1896.

ROWLEY, GEORGE DAWSON [1822–78].
1875–8. Ornithological Miscellany. *3 vols. 4to.* *London and Brighton*

This valuable serial was published at irregular intervals in 14 parts. The title is included elsewhere in this Catalogue as a periodical, written, it is true, mostly by Rowley but containing important papers by Dresser, Alfred Newton, R. B. Sharpe, P. L. Sclater, and other noted ornithologists.

ROY, CHARLES SMART [1854–97].
1893–6. A dictionary of birds. *See* NEWTON, A.

ROYAL ASIATIC SOCIETY OF GREAT BRITAIN AND IRELAND. *London.*
1909–*date*. Asiatic Society Monographs.
1834–63. Journal. Series 1.
1864–89. Journal. Series 2.
1890–*date*. Journal. Series 3.
1823–33. Transactions. Continued as Journal.

**** *Bombay Branch.*
1841–1923. Journal.
1925–*date*. Journal. New series.
1819–23. Transactions.

**** *Ceylon Branch.*
1845–*date*. Journal. *Colombo.*

[ROYAL ASIATIC SOCIETY OF GREAT BRITAIN AND IRELAND *(contd.)*]

**** *China Branch.*

1886–95. Journal.

1847–59. Transactions.

**** *Korea Branch.*

1900–*date.* Transactions. *Seoul.*

**** *Malayan Branch.*

1923–*date.* Journal. Continues Journal of the Straits Branch. *Singapore.*

**** *North China Branch.*

1915–*date.* Extra Volume.

1858–60. Journal. Series 1.

1864–*date.* Journal. New series.

1915–*date.* Publications.

**** *Straits Branch.*

1878–1922. Journal. Continued as Journal of the Malayan Branch.

1895–6. Publications. *Singapore.*

ROYAL AUSTRALASIAN ORNITHOLOGISTS' UNION.

1926. Official check-list of the birds of Australia. 2nd ed. *8vo. pp. x+212. map (fold.). append. vocab. 2 indexes.* *Melbourne.*

A comprehensive check-list of the birds of Australia giving: (1) The consecutive number of the species; (2) Accepted generic name; (3) Specific name; (4) Vernacular name; (5) Consecutive number of species in the first ed. of Check-list; (6) No. of col. pl in Gould's *Birds of Australia*; (7) Species No. in Gould's *Handbook to the Birds of Australia*; (8) No. of pl. in Mathews' *Birds of Australia*; (9) Range of each bird in Australia and beyond; (10) Original reference of the accepted specific name; and (11) After the necessary references for the accepted name, the references to plates and standard works, and the range of the species, the various names used in Australian works are given in chronological order. The present copy is a presentation one from the Council to Dr. Casey Wood. *See also* EMU.

ROYAL CANADIAN INSTITUTE. *Toronto.*

1879–89. Proceedings of Canadian Institute.

1897–1904. Proceedings.

1889–*date.* Transactions.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

1845. Descriptive and illustrated catalogue of the fossil organic remains of *Mammalia* and *Aves* contained in the Museum of the Royal college of surgeons of England. *4to. pp. vii+391. 10 pl. T. of c.* *London.*

ROYAL IRISH ACADEMY.

1841–1930. Proceedings. Three Series and Sections A and B.

ROYAL NATURAL HISTORY.

1895. Edited by Lydekker, Richard, with contributions by P. L. Sclater and others. *12 vols. 4to. 72 col. pl. 1,600 figs. London and New York.*

The birds are described in six volumes.

ROYAL PHYSICAL SOCIETY OF EDINBURGH.

1854–*date.* Proceedings.

ROYAL SOCIETY OF ARTS AND SCIENCES OF MAURITIUS. *See* SOCIÉTÉ ROYALE DES ARTS ET DES SCIENCES DE MAURICE.

ROYAL SOCIETY OF CANADA.

Ottawa, Montreal.

1882–*date.* Proceedings and Transactions.

ROYAL SOCIETY OF EDINBURGH.

1832–*date.* Proceedings.

1783–*date.* Transactions.

ROYAL SOCIETY OF LONDON.

1867–1925. Catalogue of Scientific Papers.

1679–82. Philosophical Collections. Published as substitute for Philosophical Transactions for these years.

1665–1886. Philosophical Transactions.

1887–*date.* Philosophical Transactions. Series A.

1887–*date.* Philosophical Transactions. Series B.

1800–1905. Proceedings.

1905–*date.* Proceedings. Series A.

1905–*date.* Proceedings. Series B.

1896–*date.* Yearbook.

1902–9. Evolution Committee reports.

1879. An account of the . . . zoological collections made in Kerguelen's Land and Rodriguez during the Transit of Venus Expeditions . . . 1874–5. *4to. pp. 9+579. illust. text. 55 pl.* *London.*

This elaborate, systematic natural history report is separately published from the Society's *Philosophical Transactions*, vol. clxviii, and the zoological descriptions given are, first, of the collections from Kerguelen Island, a desolate area in the Southern Ocean. Seals and Cetaceans are described by W. H. Flower; Birds by R. B. Sharpe; Oology by H. Saunders; Fishes by A. Günther. The zoological collections from Rodriguez were reported upon as follows: Extinct Fauna: Birds by A. Günther, H. H. Slater, E. Newton, and J. W. Clark; Reptiles by A. Günther. Recent fauna: Mammalia by G. E. Dobson; Birds, R. B. Sharpe; Reptiles and Fishes, A. Günther. Many species new to science were among the results of these explorations.

1912. Catalogue of the periodical publications in the library. *4to. pp. 8+455.* *London.*

ROYAL SOCIETY OF NEW SOUTH WALES.

Sydney.

1867–*date.* Journal and Proceedings.

ROYAL SOCIETY FOR THE PROTECTION OF BIRDS.

1891–*date.* Annual report. *London.*

The first report (*12mo. pp. 12*) is dated October 1891. Besides business matter connected with the Society there are valuable contributions to the history of bird protection.

1903–30. Bird notes and news. Vols. 1–17. Circular letter issued periodically by the Society.

Addressed to members and friends of the Society, and to all persons interested in bird protection.
In addition to the publication of this well-edited periodical, organ of a Society doing admirable work in the British Empire, the Society publishes many leaflets on such topics as 'The Plume Trade', 'Bird and Tree Day', 'Bird Sanctuaries', etc., and endeavors to encourage public education on the subject of Bird protection, Bird culture, and the advocacy of the rights of animals.
The membership of the Society and contributors to its organ include many prominent ornithologists—such men as the late W. H Hudson.
The present Secretary of the Society and the principal contributor to the columns of this magazine, is Miss L. Gardiner.

1911. Feathers and facts. A reply to the Feather-trade, and review of facts with reference to the persecution of birds. *8vo. pp. 74. append. index.* *London.*

The contents of this reply are divided into two parts: (1) The story of the plume trade; (2) Some chapters in the Story; whilst the

appendix contains the text of the plumage bills of 1908 and 1911. A vigorous reply to the misstatements of the 'Trade', who alarmed at the threatened loss of their profits, are industriously engaged in scattering their letters, circulars, and pamphlets broadcast over the country.

ROYAL SOCIETY OF QUEENSLAND. *Brisbane.*

1884–*date.* Proceedings.

ROYAL SOCIETY OF SOUTH AFRICA. *Cape Town.*

1908–*date.* Transactions.

ROYAL SOCIETY OF SOUTH AUSTRALIA. *Adelaide.*

1899–*date.* Memoirs.

1877–*date.* Proceedings and Transactions.

ROYAL SOCIETY OF TASMANIA. *Hobart.*

1848–*date.* Papers and Proceedings.

1845–90? Report.

1856. Catalogue of books in the library. *8vo. pp. 83.* *Tasmania.*

ROYAL SOCIETY OF VAN DIEMEN'S LAND. *See* ROYAL SOCIETY OF TASMANIA.

ROYAL SOCIETY OF VICTORIA. *Melbourne.*

1854–87. Proceedings.

1888–*date.* Proceedings. New Series.

1888–*date.* Transactions.

ROYAL SOCIETY OF WESTERN AUSTRALIA.

1914–*date.* Journal and Proceedings.

ROYAL ZOOLOGICAL AND ACCLIMATISATION SOCIETY OF VICTORIA. *Melbourne.*

1861–70. As Acclimatisation Society of Victoria.

1871–1909. As Zoological and Acclim. Soc. of Victoria.

1861–*date.* Annual Report. (None issued in 1869.)

1872–8. Proceedings.

1922. Official guide to the gardens. *See* LE SOUËF, WILLIAM HENRY DUDLEY.

ROYAL ZOOLOGICAL SOCIETY OF IRELAND. *Dublin.*

1832–*date?* Annual Report.

1840–60. Proceedings.

See also IRISH NATURALIST.

ROYAL ZOOLOGICAL SOCIETY OF NEW SOUTH WALES. *See* AUSTRALIAN ZOOLOGIST.

ROYDS, T. F.

1918. The beasts, birds, etc., of Virgil. 2nd ed. *Oxford.*

ROYLE, JOHN FORBES [1799–1858].

1833–40. Illustrations . . . of the Natural History of the Himalayan Mountains and Cashmere. *2 vols. 4to. pp. 82+472. 1 col. pl. atlas. 100 col. pl.* *London.*

The only vertebrate title in this fine work is a Memoir on the Mammalogy, etc., by W. Ogilby.

RUBOW, CARL.

1911. The life of the common gull told in photographs. Tr. from the Danish. *8vo. pp. 6. 25 pl. (1 fold.).* *London.*

RUDBECKIUS, OLOF (*the Younger*) [1660–1740].

1705. Ichthyologiae Biblicae pars prima. (All pub.) *pp. 8+148. illust.* *Upsala.*

Intended to describe all the fishes mentioned in the bible.

RUDOLF, FRANZ KARL JOSEF, *Crown Prince of Austria* [1858–89].

1889. Notes on sport and ornithology [tr. from the German edition, 1877], by C. G. Danford. *8vo. pp. 8+648. index.* *London.*

RUDOLPHI, CARL ASMUND [1771–1832].

1812. Beyträge zur Anthropologie, etc. *8vo. pp. 118.* *Berlin.*

RUEL (RUELLIUS), JOANNES [1474?–1537].

1530. Των ἱππιατρικῶν βιβλία δύο. Veterinariae Medicinae libri duo, etc. *folio.* [O. 3851.] *Paris.*

The copy of this popular treatise on the horse and veterinary medicine contains a glossary of six leaves by Pierre Ruel (probably) a brother of the author. Osler says (*Bibliotheca Osleriana*, p. 33) that Jean Ruel of Soissons taught himself Greek and Latin and put his knowledge to good account by translating, among many others, the works of naturalists. The Osler Library has copies of many of these translations. Of interest to zoologists are his transcriptions of Dioscorides and Pliny. From his facility in this work Budaeus called the translator 'L'Aigle des interpretès'.

1537. Των ἱππιατρικῶν βιβλία δύο. Veterinariae Medicinae libri duo, etc. *4to.* *Basil.*

Edited by Simon Grynaeus. This Greek treatise (that passed through many editions) is compiled from Hippiater, Hierocles, Eumelos, Apsyrtus, and many other Greek writers on domestic zoology. [O. 3850.]

RUETIMEYER, CARL LUDWIG [1825–95].

1861. Untersuchungen über die Geschichte der wilden und die Haus-Säugethiere von Mittel-Europa. *4to.* *Basel.*

Author's reprint. Most of the essays of this noted paleontologist were written for Swiss journals, to be consulted in one or other of the McGill libraries.

1881. Veränderungen der Thierwelt in der Schweiz seit der Anwesenheit des Menschen. New ed. *8vo. illust.* *Basel.*

The first edition was issued in 1875.

RUGBY SCHOOL NATURAL HISTORY SOCIETY. *Rugby.*

1867–*date.* Report.

RUGGLES-BRISE, CECILY J.

[1927]. Notes on some birds of Dar es Salaam. *8vo. pp. xvii+95. 21 pl. 9 figs. index.* *Norwich.*

RUINI, CARLO [d. 1598].

1618. Anatomia del Cavallo, etc. *2 vols.* *Venice.*

The first edition of this early treatise on the anatomy of the horse appeared in 1598. [O. 918.]

RUMPF, GEORG EBERHARD [1627–1702].

1705. D'Amboinische raritetkamer, behelz. eene beschryv. van allerhande schaalvisschen, te weeten krabben, kreeften, en diergelijke zeedieren, als mede hoorntjes en schulpen, mineralen, gesteenten, enz., die men in d'Amboinsche eilanden vindt. *folio. pp. 30+340+43. 62 pl.* *Amsterdam.*

This rare folio is important because of its early descriptions and depiction of faunal (mainly marine) life in the Dutch East Indies (the Moluccas especially) at the end of the seventeenth century. The copy in hand is of the *editio princeps*, published after the author's death. Several subsequent printings, including Latin and German translations, are well known.

[**RUMPF**, G. E. (*contd.*)]

1739. Thesaurus imaginum Piscium, etc. *folio. pp. 10+15. 60 pl.* *Lugdun. Bat.*

A compilation from the *Amboinische raritetkammer* with its plates. The copy in hand belonged to Thomas Pennant and has marginal and other notes in his handwriting. The first edition of this extract was (probably) issued in 1711.

1766. Amboinische raritätencammer, oder Abhandlung von den steinschaalichten thieren, welche man schnecken und muscheln nennet, aus dem holländischen übersetzt von Philipp Ludwig Statius Müller . . . und mit Zusätzen aus den besten schriftstellern der conchyliologie vermehret von Johann Hieronymus Chemnitz. *folio. pp. 146 +200. 33 pl.* *Wien.*

RÜPPELL, Wilhelm Peter Eduard Simon [1794–1884].

1826–8. Atlas zu der Reise im nördlichen Afrika, etc. *5 pts. folio. col. illust.*

This supplement was issued by the Senkenberg Naturf. Gesell. The birds and mammals are described by P. J. Cretzschmar, the former in *pp. 55 with 36 col. pl.*; the latter in *pp. 78 with 30 col. pl.* C. H. G. von Heyden gives an account of the reptilia in *pp. 24 with 6 col. pl.* The fishes of the Red Sea are treated by E. Rüppell, *pp. 144 and 35 col. pl.*

1835–40. Neue Wirbelthiere, zu der Fauna von Abyssinien gehörig, etc. *4 pts. folio. pp. 6+140. 95 (partly col.) pl.* *Frankfurt-am-Main.*

In another publication the author treats the birds of this work as part of a monograph on Abyssinian fauna, but with the title beginning *Systematische Uebersicht*, 1845.

1845. Systematische Uebersicht der Vögel Nord-ost-Afrika's. *4to. pp. 7+140. 50 col. pl.* *Frankfurt-a-Main.*

The above forms a supplement to the author's *Neue Wirbelthiere*, 1835–40, in which he describes new species from North-East Africa. The plates are unusually good, hand-colored illustrations. The present copy is a presentation from the writer.

RUSCHENBERGER, William Samuel Waithman [1807–95].

1842. Ornithology: the natural history of birds. Third-book of natural history. *12mo. pp. 11+125. 8 pl.* *Philadelphia and New York.*

Only of value as a rare and early American school compend. The cover date is 1844.

1849. Ruschenberger's Series. First books of Natural History. Elements of Anatomy and Physiology (of Mammalogy . . . Ornithology . . . Herpetology . . . Ichthyology . . . Geology) . . . From the text of Milne Edwards and A. Compte. With plates. *8 pts. 2 vols. 12mo.* *Philadelphia.*

RUSKIN, John [1819–1900].

1897. Love's meinie; 3 lectures on Greek and English birds. *Oxford.*

RUSS, Karl Friedrich Otto [1833–99].

1871. Handbuch für Vogelliebhaber, -Züchter und -Händler. *8vo. pp. 377.* *Hannover.*

This is an abbreviated edition of the author's larger work, *Die Fremdländischen Stubenvögel*, and a companion volume to vol. II, *Einheimische Stubenvögel*, both written for popular reading. The volume in hand was specially bound by an unknown English purchaser with added blank leaves, filled with clippings and notes relating to birds and bird shows.

1877. Die Brieftaube; ein Hand- und Lehrbuch für ihre Verpflegung, Züchtung und Abrichtung. *12mo. pp. xvi+480. 13 figs. bibliogr. index.* *Hannover.*

1879. Die Prachtfinken, ihre Naturgeschichte, Pflege und Zucht. *12mo. pp. 18+258. illust. index.* *Hannover.*

A popular but systematic treatise on the Finches of the world, especially of those seen in Germany as cage-birds.

1879–99. Die fremdländischen Stubenvögel, ihre Naturgeschichte, Pflege und Zucht. *4 vols. 8vo. bibliogr. indexes.* Vol. I, *pp. xxiii+710. 14 pl. (col.).* Vol. II, *pp. xxviii+928. 10 pl. (col.).* Vol. III, *pp. xxviii+891. 10 pl. (col.).* Vol. IV, *pp. xxvi+950. 2 pl. (col.). 96 figs.* *Hannover and Magdeburg.*

From 1875 to 1879 the number of birds imported for the market of cage-birds as pets increased from 250 species to about 700 species. These four volumes on exotic cage-birds and their maintenance in captivity were the life-work of the author. It is probably the standard work on the subject. Vols. II and IV were published at Magdeburg.

1882. Die sprechenden Papageien; ein Hand- und Lehrbuch. *8vo. pp. 16+404. index.* *Berlin.*

A classic work on Parrots as animals capable of human speech. The various species observed as cage-birds, their talking and other habits, methods of training, culture, and care are all fully discussed. An English translation was published in 1884.

1884. The speaking parrots; tr. from the German by Leonora Schultze. *8vo. pp. viii+296. 8 pl. (col.). 9 pl. 2 figs. index.* *London.*

1884. Die Webervögel und Widafinken; ihre Naturgeschichte, Pflege und Zucht. *8vo. pp. xiii +218. 13 figs. index.* *Magdeburg.*

Weaver-birds as cage-birds, with an account of their natural history.

1887. Die sprechenden Papageien. 2nd ed. *12mo. pp. xx+457. index.* *Magdeburg.*

A third edition was published in 1898.

1889. Allerlei sprechendes gefiedertes Volk. (Rabenoder krähenartige [mit Einschluss der Pfeifkrähen oder Flötenvögel und der Laubenvögel], Pastorvögel, Starvögel, Drosseln, Kanarienvögel und Gimpel oder Dompfaff.) Ein Hand- and Lehrbuch. *8vo. pp. xv+238. T. of c.* *Magdeburg.*

A supplement to the author's *Die Sprechenden Papageien*. This treatise furnishes a very interesting account of crows, ravens, starlings, bulbuls, mynahs, canaries, and other birds that have been taught to utter words and sentences.

1896. Vogelzucht-Buch (Stubenvogelzüchtung zum Erwerb und für wissenschaftliche Zwecke). *8vo. pp. 16+127. 13 pl. 30 text-figs.* *Magdeburg.*

1898. Der Wellensittich; seine Naturgeschichte, Pflege und Zucht. *8vo. pp. 4+121. 1 pl. 14 text-figs.* *Magdeburg.*

The fourth edition of an interesting and popular work on budgerigars, *Psittacus undulatus*, their natural history, care, and culture.

1906. Der Kanarienvogel. *12mo. pp. 16+244. 3 col. pl. text-figs.* *Magdeburg.*

The eleventh (posthumous) edition of a very popular work on the canary bird, its varieties, care, and culture. A twelfth edition was published in 1911.

1907. Vogelzuchtbuch; ein Handbuch für Züchter von Stubenvögeln.

The third edition of a well-known systematic work on cage and aviary birds. From the Cabanis-Reichenow collection. It is edited by Karl Neunzig.

1913–21. Handbuch für Vogelliebhaber, etc. *2 vols. 4to. pp. 3+895. 42 col. pl. 400 text-figs.* *Magdeburg.*

A much enlarged (fifth) edition of this famous work on foreign aviary and cage-birds.

1914. Amazonen Papageien, etc. 2nd ed.

RUSSELL, ALEXANDER [?1715–68].
1756. The natural history of Aleppo and parts adjacent; containing a description of the city and the principal natural productions in its neighbourhood. *4to. pp. 8+266+[10]. 16 pl. London.*
By a misprint the date on the title reads 1856. This is the first edition.

****** and RUSSELL,** PATRICK.
1794. The natural history of Aleppo. Containing a description of the city, and the principal natural productions in its neighbourhood. 2nd ed. *2 vols. 4to.* Vol. I, *pp. 45+446. 3 pl. (2 fold.). append.* Vol. II, *pp. 69+430. 14 pl. append. index. London.*

RUSSELL, C.
1885. The house sparrow. *See* GURNEY, J. H.

RUSSELL, PATRICK [1727–1805].
1756. The natural history of Aleppo. *See* RUSSELL, ALEXANDER.

1796. An account of Indian serpents collected on the coast of Coromandel. *folio. pp. 8+91. 45 col. pl. London.*
The species illustrated on the colored plates are given vernacular names. The famous Russell Viper was called 'Katuka Rekula Poda' and is so entitled on Plate VII. This snake, as frequent and as poisonous as the Cobra, was not exhibited at public shows. This account was followed in 1801 by a 'Continuation' describing ophidia from other parts of India.

1801. A continuation of an account of Indian serpents containing descriptions and figures from specimens and drawings transmitted from various parts of India to the East India company. *folio. pp. 15+57. 41 col. pl. London.*

1803. Descriptions and figures of two hundred fishes; collected at Vizagapatam on the coast of Coromandel. *2 vols. folio. 208 pl. London.*
The author was appointed Naturalist to the East India Company in 1785. His collection of fishes was deposited in the Company's Museum at Madras. Included in the collection is Russell's Ribbonfish (*Regalecus russellii*, Shaw), finely illustrated on plate 40. It was caught on the outside of the surf at Vizagapatam in March 1788 and the fishermen could give no name to it.

RUSSELL, WILLIAM HOWARD [1820–1907].
1881. A. Hay, Ninth Marquis of Tweeddale. A Biographical sketch by W. H. Russell. *See* TWEEDALE, A. H., 9TH MARQUIS OF.

RUSSKĬĬ ZOOLOGICHESKĬĬ ZHURNAL. (**Revue Zoologique Russe.**) **1916**–*date. Moscow.*

RUSSKOE OBSHCHESTVO AKKLIMATIZATSĬI ZHIVOTNYKH I RASTENĬĬ.
1906–8. Dnevnik. Otdĭel Ikhtĭologii.

1907–13. Trudy. Otdĭel Ikhtĭologii.

1887–1908? Zhurnal. Otdĭel Ikhtĭologii.

Otdĭelenïe Ornitologii. *See* PTITSEVĬEDĬENIE I PTITSEVODSTVO.

RUSSKOE PALEONTOLOGICHESKOE OBSHCHESTVO. *Petrograd.*
1918? Zapiski.
French title: Société Paléontologique de Russie.

RUTTY, JOHN [1698–1775].
1772. An essay towards a natural history of the county of Dublin. *2 vols. 8vo. illust. Dublin.*

RUYSCH, FRIEDRICH [1638–1731].
1724–9. Thesaurus animalium primus. *4to. pp. 56+40. 7 pl. Amsteloedami.*
Latin and Dutch in parallel columns.

RUYSCH, HENRICUS [d. 1727].
1718. Theatrum universale omnium animalium piscium, avium, quadrupedum, exanguium, aquaticorum, insectorum et angium. Ac plus quam Trecentis Piscibus Nuperrime ex Indiis Orientalibus allatis, ac nunquam antea his terris visis, locupletatum. *2 vols. (7 pts.). folio. front. 270 pl. Amsteloedami.*

RYMSDYK, JAN VAN [*fl.* 1767–78].
1791. Museum britannicum; or, A display of thirty two plates, in antiquities and natural curiosities. 2nd ed. *folio. pp. 4+17+88. 30 col. pl. text-figs. London.*
The first edition appeared in 1778.

RYSTEDT, FREDERICUS MELCHIOR.
1823. Fauna Americae meridionalis [*sic*]. *See* THUNBERG, C. P.

SABINE, EDWARD [1788–1883]. **1828.** *See* PARRY, *Sir* W. E.

SACCHO, FILIPPO DA TAGLIACOZZO.
1591. Opera di Mescalzia . . . de' caualli, etc. *4to. illust.* [O. 3925.] *Roma.*
A treatise on horses and their diseases and treatment.

SÄCHSISCH-THÜRINGISCHER Verein für Vogelkunde und Vogelschutz zu Halle, Monatsschrift. *See* DEUTSCHER VEREIN ZUM SCHUTZE DER VOGELWELT, ORNITHOLOGISCHE MONATSSCHRIFT.

SADAHIDE.
1863. Animal Sketches in Color. *3 pts. 4to.* Arranged in European order.
Illustrated sketches of Japanese zoology; text in Japanese.

SADRU'D-DIN MUHAMMAD B. ZABARDAST KHĀN.
1720. Khawassu'l-haywan. A treatise on zoology. *8vo. 81 ff.* Persian MS.
Author's copy, with an alphabetical list of animals in Arabic, Persian, and Hindi.

SAGE, JOHN HALL [1847–1928] and **others.**
1913. The birds of Connecticut . . . and Louis Bennett Bishop . . . assisted by Walter Parks Bliss. *2 pts. 8vo. pp. (8)+370. append. bibliogr. index. Hartford.*
Part 1 contains an annotated list of the species. Part 2, by Bishop, alone, contains a discussion of the economic ornithology.

SAGEMEHL, M. **1859.** *See* BRONN, H. G. Die Klassen, etc., 1859–97.

SAGRA, RAMÓN DE LA [1801–71], *ed.*
1839–61. Historia física, política y natural de la Isla de Cuba. *13 vols. folio.* Atlas of Zoology, 1855. *Paris.*
A very important work on Cuba. A French edition was issued at the same time—an exact translation of this Spanish treatise. Vols. II, III, and IV deal with vertebrate zoology, the mammals being described by R. de la Sagra and F. L. P. Gervais, *pp. 39, 8 col. pl.*, 1845; birds by A. d'Orbigny, *pp. 220, 33 col. pl.*, 1839; vol. IV is entirely devoted to reptiles by Cocteau and Bibron, and fishes by A. Guichenot, *pp. 255, 36 col. pl.*, 1843–53. The section on fishes was not published until 1853. The excellent Atlas in the French reprint lacks some engravings of shells but is otherwise identical with the Spanish original, in which the numbered plates correspond with references in the text.

SAINT-CYR, D. N.

[**1886**]. Report of a voyage made to the Canadian Labrador coast; also a copy of his catalogue of plants and birds of the North Shore and of the islands belonging to the Canadian Labrador. *8vo. pp. 153.* Author's reprint. *Quebec.*

The above forms *Sessional Paper, No. 37, of the Legislative Assembly, Province of Quebec.* A list of the birds is on pp. 34–8.

ST. GALLISCHE NATURWISSENSCHAFTLICHE GESELLSCHAFT. *St. Gallen.*

1858/60–*date.* Bericht und Jahrbuch.

SAINT-HILAIRE, Alex Bourjot.

1837–8. Histoire naturelle des perroquets, troisième volume (supplémentaire), pour faire suite aux deux volumes de Levaillant, contenant les espèces laissées inédites par cet auteur ou récemment découvertes. *folio. pp. 42+220. 111 col. pl. 6 text-figs.* *Paris.*

This is supplement number three to Levaillant's *Histoire Naturelle des Perroquets*, and had already been published in 29 parts as the author's *Collection des Perroquets*. The work is a valuable, systematic contribution to our knowledge of Psittaci. The hand-colored lithographs are excellent. The fourth supplement is Souancé's *Iconographie des Perroquets* also in the E.S.W. Library. *See also* LEVAILLANT, FRANÇOIS.

SAINT-HILAIRE, Étienne Geoffroy. *See* GEOFFROY SAINT-HILAIRE, É.

SAINT-HILAIRE, Isidore Geoffroy. *See* GEOFFROY SAINT-HILAIRE, I.

SAINT-HILAIRE, Jaume Jean Henri. *See* JAUME-SAINT-HILAIRE, JEAN HENRI.

ST. JOHN, Charles William George [1809–56].

1878. Sketches of the wild sports & natural history of the Highlands. *8vo. pp. 15+338. 69 figs.* *London.*

1919. Wild sports & natural history of the Highlands. *4to. pp. xxix+471. 39 pl. (28 col.). 26 figs. index.* *London and Edinburgh.*

ST. JOHN, Claude and **others.**

[**1911**]. Our canaries. *8vo. pp. 382. 63 pl. (31 col.). 164 figs. 3 indexes.* *London.*

1919. Bird ailments and accidents and how to treat them. *12mo. pp. 118. glossary.* *London.*

1920. Canary breeding for beginners. *8vo. pp. 83. 17 figs.* *London.*

ST. JOHN, Henry Craven [1837–].

1880. Notes and sketches from the wild coasts of Nipon. *8vo. pp. xxiii+392. 8 pl. 5 maps (col.). 41 figs. append.* *Edinburgh.*

References to animals, especially birds, occur throughout the book. A list (Siebold's) is given in the appendix of Japanese birds, with additions by the author. The present copy is a presentation from the author to Howard Saunders, from whose library it was secured.

ST. JOHN, *Mrs.* Horace.

1856. Audubon, the naturalist of the New World. His adventures and discoveries. *12mo. New York.*

There were several editions, with slightly varying titles, of this interesting work published both in America and Great Britain.

1862. Audubon, the naturalist of the new world. His adventures and discoveries. New, revised ed. *12mo. pp. xxiv+311. 4 pl. 1 fig.* *Boston.*

ST. JOHN, Oliver Beauchamp Coventry [1831–91].

1876. Persia. *See* BLANFORD, W. T.

ST. JOHN, Spenser Buckingham [1825–1910].

1863. Life in the forests of the far east; or Travels in northern Borneo. 2nd ed. *2 vols. 8vo.* Vol. I, *pp. xvi+406. 10 pl. (col.). 2 maps (fold.).* Vol. II, *pp. xi+424. 6 pl. (col.). 1 map. index.* *London.*

ST. LOUIS NATURAL HISTORY MUSEUM ASSOCIATION. *St. Louis, Mo.*

1918–21? Bulletin.

ST. LOUIS. Transactions of Academy of Science. *See* ACADEMY OF SCIENCE OF ST. LOUIS.

ST. PETERSBURG. Annuaire du Musée Zoologique de l'Académie d. Sciences. *See* ANNUAIRE DU MUSÉE, etc. **1896**–*date.*

SAINT-PIERRE, Jacques Henri Bernardin de [1737–1814].

1809. Studies of nature. 5th ed. *4 vols. 8vo.* *London.*

The first edition of this work was published in 1784. The present edition is translated from the French by Henry Hunter.

1815. Harmonies of nature. *3 vols. 8vo.* Vol. I, *pp. xxviii+439. front. (portr.).* Vol. II, *pp. viii+467.* Vol. III, *pp. vii+525.* *London.*

A sequel to the author's *Studies of Nature*, edited with notes by L. Aimé-Martin and translated by W. Meeston.

SALA, C. F. **1885.** *See* BÜTTIKOFER, JOHANN.

SALERNE, François [d. 1760].

1767. L'histoire naturelle, éclaircie dans une de ses parties principales, l'ornithologie. *See* RAY, J.

SALIHOTRA (Salihutar).

1839. Tarjuma-i-Salihotar. A treatise on the horse and his diseases. *4to. 158 ff.* Persian MS. copy, with variations, of a famous ancient, original Sanskrit manuscript.

SALMON, J. **1902–6.** *See* PERRIER, J. O. E.

SALMON, John Drew [1802–59].

1849. The letters of Rusticus. *See* NEWMAN, E.

SALT, Henry [1780–1827].

1816. Voyage en Abyssinie . . . 1809–10. *2 vols. and atlas.* Text, *8vo.* Atlas, *4to. 32 pl. text-figs.* ? *Paris.*

The French translation (by P. F. Henry) of the English edition, 1814. In an appendix the birds are described by J. Latham and Lord Stanley.

SALT, Henry S.

1905. Animals' Rights. *12mo.*

An eloquent appeal for the (often grudgingly given) rights of the so-called lower animals.

SALTER, John H.

1913. [British] Bird life throughout the year. *8vo. pp. 8+256. 23 pl. (8 col.). index.* *London.*

SALVADORI, Tommaso Adlard [1835–? 1912].

1864. Catalogo degli Uccelli di Sardegna, etc. *8vo. pp. 138.* *Milan.*

One of the many monographs of this celebrated naturalist, who wrote most of his essays for journals, author's reprints of which—like the present title—are frequently met with. Count Salvadori contributed largely to the well-known Catalogues on natural history published by the British Museum.

1871. Uccelli. [Pt. 2, Fauna d'Italia.] *4to. pp. 56 +352.* *Milano.*

This systematic account of the birds of Italy gives full details of their natural history, vernacular names, synonymy, sexual differences, distribution, nidification, migratory habits, etc. A manuscript title reads '*Fauna d'Italia.* Parta seconda, Fascicolo primo', with the date, 1871, instead of 1872, as furnished by the preface. The copy in hand is a present from the writer to Bowdler Sharpe.

1871–2. *See* CORNALIA, E.

1873. Viaggio dei Signori O. Antinori, O. Beccari ed A. Issel nel mar Rosso, nel territorio dei Bogos e regioni circostanti durante gli anni 1870–71. *Genova.*

A record of animal life made during a voyage to the Red Sea.

1880. On the birds collected in Ternate, Amboyna, etc. *See* THOMSON, C. W. and MURRAY, J.

1880–2. Ornitologia della Papuasia e delle Molucche. *3 vols. 4to.* Parta prima. *pp. xi+573 +7. bibliogr. of T. Salvadori.* Parta seconda. *pp. xvi+705+1.* Parta terza. *pp. xv+595. Torino.*

This fine monograph on the birds of Papua and the Moluccas was published in the *Memorie R. Acad. Sci. Torino*, vol. 33, 1881. Provided with a new title-page and special wrappers the treatise was separately printed in the above three volumes. Later, supplements were issued in the same manner. The present copy, in the original wrappers, is from the Godman Library.

1882. Monografia del gen. Casuarius, Briss. *4to. pp. 2+44. 2 col. pl. 10 figs. 6 cuts in text. Turin.*

Extract from the *Mem. d. Reale Accad. d. Sc. di Torino* with a separate title-page. Presentation copy from the writer to P. L. Sclater.

1884. Uccelli dello Scioa e della regione fra Zeila e lo Scioa. *8vo. pp. 268. index.* *Genova.*

This is the original monograph on the birds of Shoa, Abyssinia, collected by the Italian Expedition to Equatorial Africa. The Antinori collection comprised 307 species, bringing the total number of Shoa birds to 364.

1884–6. Catalogi di una collezione di uccelli [276 species] dello Scioa [Abyssinia] fatta dal Dott. Vincenze Ragazzi negli anni 1884–86. *4to. pp. 146.* *Genova.*

A second edition was published in 1888, a copy of which, from Canon Tristram's collection, a presentation from the author, is now in the E.S.W. Library.

1887. Elenco degli Uccelli Italiani. *4to. pp. 331. index.* *Genova.*

A brief, systematic and descriptive catalogue of 428 species of Italian birds. This work was compiled for the *Annali del Museo civ. di Stor. Nat. di Genova*, Serie 2e, vol. iii, and issued as a separate work. The copy in hand is from Prof. A. Reichenow's library. The preface is dated Decr. 1886.

1889–91. Aggiunte alla ornitologia della Papuasia e delle Molucche. *3 pts. in 1 vol. folio. pp. 244* [paged continuously]. *Torino.*

Three supplements to the author's well-known *Ornithology of Papua and the Moluccas.* The present volume is from the Godman Library.

1891. Catalogue of *Psittaci*, or parrots, in the collection of the British museum. (*Catalogue of the birds in the British Museum*, vol. XX.) *8vo. pp. 17+658. 18 col. pl. 5 text-figs. addend. 2 indexes.* *London.*

1893. Catalogue of the Columbae, or pigeons, in the collection of the British museum. *8vo. pp. xvii+676. 15 pl. (col.). append. 2 indexes.* *London.*

Forming vol. XXIII of the *Catalogue of the Birds in the British Museum.* The collection consists of 7,359 specimens, referred by the author to 415 species. Only about one-tenth of the known species are unrepresented in the collection. The fine colored plates are by J. G. Keulemans.

1895. Catalogue of the Chenomorphae (Palamedeae, Phoenicopteri, Anseres) Crypturi and Ratitae in the collection of the British museum. *8vo. pp. xv+636+(2). 19 pl. (col.). 2 indexes.* *London.*

Vol. XXVII of the *Catalogue of the Birds in the British Museum.* These families are represented by 5,541 specimens, embracing 296 species (67 types), of which only 19 are unrepresented in the Museum. The fine plates are by J. Smit and J. G. Keulemans.

1905–14. Genera Avium. *See* WYTSMAN, P.

SALVIANI, IPPOLITO [1514–72].

1554. Aqvatilivm animalivm historiæ liber primvs, cvm eorvmdem formis, ære excvsis. *folio. pp. 16. ff. 256. 83 pl.* *Romae.*

An important, early and well-illustrated treatise on fishes.

SALVIN, FRANCIS HENRY [1817–1904].

1869. *See also* FREEMAN, G. E.

****** and BRODRICK,** WILLIAM.

1873. Falconry in the British Isles. 2nd ed. *4to. pp. 8+171. 28 col. pl. index. glossary.* *London.*

This is the 'best' edition, the plates of the first issue having been redrawn and several new ones added. The work is regarded as *the* authority on falconry, the illustrations being most interesting and informing.

SALVIN, OSBERT [1835–98].

1861–96. Birds of South and Central America. *3 vols.*

This is a collection of reprints from various journals, *Ibis*, *Proc. Zool. Soc.*, etc.—some of them author's special separates, and several written conjointly with P. L. Sclater and others. They form practically a complete collection of Salvin's contributions to periodical and serial ornithologic literature.

****** and SCLATER,** P. L.

1866–9. Exotic ornithology, &c. *See* SCLATER, P. L.

[**1867–70**]. On some Collections of Birds [216 species] from Veragua. *2 pts. 8vo.* Pt. 1, *pp. 33. 1 pl. (col.).* Pt. II, *pp. 47. map (fold.).* [*London.*]

The present copy is interleaved with numerous MS. notes and is from the Godman Library with bookplate.

****** and SCLATER,** P. L.

1873. Nomenclator avium neotropicalium, &c. *See* SCLATER, P. L. and SALVIN, O.

****** and GODMAN,** FREDERICK DUCANE.

1879–1904. Biologia centrali-americana. Aves. *4 vols. 4to.* Vol. I, *pp. xliv+512.* Vol. II, *pp. 598.* Vol. III, *pp. iv+510.* Vol. IV, *pp. vii. 84 pl. (col.). T. of c.* *London.*

This important monograph, issued in 257 parts, treats of the complete natural history of the region. The 1,413 species of birds included in the work embrace representatives of 78 families and 539 genera, the 84 plates depicting 149 species. Salvin died in 1898 and Godman completed the work with the assistance of R. B. Sharpe and W. R. Ogilvie-Grant. All portions of vol. III after p. 184 bear only Godman's name, on the original wrappers. *See also* GODMAN, F. D.

1881. *See* SCLATER, P. L. and SALVIN, O.

1882. A catalogue of the collection of birds formed by the late H. E. Strickland [6,006 specimens]. *4to. pp. 16+625.* *Cambridge.*

****** and GODMAN,** F. DUCANE.

[**1882–6**]. Notes on birds [589 species] from British Guiana. *9 pts. in 1 vol. 8vo. 6 pl. (col.).* [*London.*]

Authors' extracts from *Ibis.*

The above notes are based on a series of collections made by Henry Whiteley in British Guiana during 1879–86. Whiteley's travels included the ascent of Roraima to upwards of 7,000 ft. The only

[**SALVIN,** O. (*contd.*)]

other authority on the birds of Guiana at that time was Richard Schomburgk, who explored the country in 1840–4. The present copy is from the Godman Library with newspaper clippings inserted, about Whiteley's journeys, and the climbing of Roraima by Everard im Thurm and others. The E.S.W. Library has a second copy of this collection from the library of P. L. Sclater with that writer's manuscript corrections and addenda.

1885–97. Coloured figures of the birds of the British islands. *See* LILFORD, T. L. P.

**** and **HARTERT,** ERNST.

1892. Catalogue of the Picariae in the collection of the British museum. *8vo. pp. xvi+703. 14 pl. (col.). 11 figs. addend. 2 indexes.* *London.*

Forming vol. XVI of the *Catalogue of the Birds in the British Museum.* The collection consists of 12,286 specimens representing 687 species (211 types).

1896. *See* SAUNDERS, HOWARD.

SALVINI, ANTONMARIA. *See* OPPIANUS, 1864.

'SAMARANG', H.M.S.

1850. The Zoology of the Voyage. *folio. See also* ADAMS, ARTHUR. *London.*

The Vertebrata, *pp. 43, 8 col. pl.*, were described by J. E. Gray, and the Fishes by Sir J. Richardson, *pp. 28, 10 col. pl.* The sections were separately paged.

SAMMLUNG NATURWISSENSCHAFTLICHER VORTRÄGE. *See* ABHANDLUNGEN UND VORTRÄGE AUS DEM GESAMMTGEBIETE DER NATURWISSENSCHAFTEN.

SAMUELS, EDWARD AUGUSTUS [1835–1908].

1867. Ornithology and oölogy of New England. *8vo. pp. vii+583. 23 pl. 4 pl. (eggs, col.). 38 figs. 2 indexes.* *Boston.*

Descriptions of the birds taken from Baird (*Pacific Railroad Surveys*, vol. ix, 1858), with general discussions of the species mostly from Wilson, Nuttall, and Audubon, with some original matter. William Couper supplied notes on the distribution, etc., of certain species in Quebec. The illustrations of eggs were prepared by M. M. Tidd and Nathan Brown; most of the other plates are copied from Audubon. The work passed through a large number of editions under various titles.

1868. Among the birds; a series of sketches for young folks. *8vo. pp. viii+223. 4 pl. 9 figs.* *Boston.*

1868. Ornithology and oölogy of New England.

This edition has the identical text of the *editio princeps* of 1867, but has a tall paper format, an appendix, and superior all-colored lithographed plates.

1869. Ornithology and oölogy of New England.

The format and plates of the 1867 edition have been adopted in this printing, the bird portraits, however, being colored. There is no change in the text.

1870. The birds of New England and adjacent states. 5th ed. *8vo. pp. vii+591. 8 pl. (col.). 38 figs. append. 2 indexes.* *Boston.*

This edition differs from the 1869 issue in having eight colored plates (containing 47 figures of birds on a reduced scale) in place of the 23 plates of the former issue. The four plates of eggs are also omitted. There is an extra five pages to the appendix which includes the addition of some new species, as well as the deletion of others. Otherwise the general body of the work is exactly the same as that of previous editions.

1883. Our northern and eastern birds. Containing descriptions of the birds of the northern and eastern states and British provinces. With a supplement from Holder's 'American fauna'. *8vo. pp. vii+600. 41 pl. (6 col.). 35 figs. append. supplement. 2 indexes.* *New York.*

SANDARS, EDMUND.

1929. A Bird Book for the Pocket. 2nd ed. *12mo. col. pl.* *London.*

A popular guide to 200 species of British birds, useful to the amateur. The colored illustrations are poor but serve as a means of identification.

SANDE, G. A. J. VAN DER [?1840–1910]. **1906.** *See* WICHMANN, C. E. A.

SANDERSON, LYLE WARD.

[**1916**]. Chickadee-dee and his friends. *8vo. pp. xii+148. 16 pl. (8 col.).* *New York.*

SANDFORD, L. C. *See* SANFORD, L. C.

SAN DIEGO SOCIETY OF NATURAL HISTORY.

1905–30. Transactions.

See also WEST AMERICAN SCIENTIST.

1924. A brief history . . . on [its] Fiftieth Anniversary. *8vo. pp. 24. 1 pl.* *San Diego, Calif.*

SANDIFORT, GÉRARD [1779–1848].

1839–44. Ontleedkundige beschouwing van een' volwassen Orang-oetan (Simia Satyrus). *pp. 37.* [*Leiden.*]

Author's excerpt.

SANDYS, EDWYN and **VAN DYKE,** T. S.

1902. Upland game birds. *8vo. pp. ix+429. 9 pl. index.* *New York.*

A popular work that has passed through several editions. The Compiler's main objection to the contents lies in the continued stimulus to slaughter rather than to preserve some of our most beautiful American birds. The E.S.W. Library has (identical) reprints, dated respectively 1902 and 1924.

SANFORD, LEONARD CUTLER [1869–], **BISHOP,** L. B., and **VAN DYKE,** T. S.

1903. The Water-fowl family. *8vo. pp. ix+598. 20 pl. 1 fig. index.* *New York.*

A companion to Sandys and Van Dyke's *Upland Game Birds*, 1902. Another edition appeared in 1924.

SAÔNE-ET-LOIRE.

1865–6. Histoire Naturelle de Saône-et-Loire.

SANTA BARBARA. Museum of Comparative Oology. *Santa Barbara, Cal.*

1919–22. Journal.

Continued as Comparative Oologist.

SANTA BARBARA SOCIETY OF NATURAL HISTORY.

1887–1902. Bulletin.

SÃO PAULO. Museu Paulista.

1895–1930. Revista.

1907–30. Catalogos da Fauna Brazileira. Vol. I. As aves do Brazil, pelo Prof. H. von Ihering e Rodolpho von Ihering. *pp. 38+485. 2 col. maps.*

SAPPORO NATURAL HISTORY SOCIETY.

1905–*date.* Transactions.

Contributions in Japanese, English, and German.

SARAJEVO. Bosnisch - Hercegovinisches Landesmuseum.

1888. Katalog. *8vo. pp. 92.* *Sarajevo.*

1894. Materialen zu einer Ornis Balcanica. II. Bulgarien. O. Reiser. *8vo. pp. 12+204. 3 col. pl. 1 map.* *Wien.*

SARASIN, CARL FRIEDRICH FRITZ [1859–].
1913. Die Vögel Neu-Caledoniens und der Loyalty-Inseln. *4to. pp. 6+78. 28 pl.* *Wiesbaden.*
Author's excerpt from *Nova Caledonia. Zoologie,* Bd. 1, Heft 1.

SARASIN, PAUL [1856–] and **SARASIN,** CARL FRIEDRICH FRITZ.
1896–1906. Materialien zur naturgeschichte der insel Celebes. *5 vols. 4to. illust.* *Wiesbaden.*
Although the two Sarasins wrote extensively—especially for periodical literature—on the natural history of the Celebes and other East Indian islands there is little in these volumes on vertebrate zoology.

SARATOVSKOE OBSHCHESTVO ESTESTVOISPYTATELEĬ I LÍUBITELEĬ ESTESTVOZNANÏÍA.
1910–*date.* Otchet.

1895–*date.* Trudy.

1924–*date.* Volzhskaia Biologicheskaia Stantsiia—Monografii.
French title: Société des Naturalistes de Saratov.

SARAWAK MUSEUM JOURNAL; for the Promotion of Scientific Knowledge and . . . Natural History of the Island of Borneo.
1911–*date.* *Kuching.*

SARS, GEORG OSSIAN [1837–].
1896–*date.* Fauna Norvegiae. *Christiania.*
In Norwegian and English. A continuation of *Fauna littoralis Norvegiae* by Michael Sars.

SARS, MICHAEL [1805–69], and **others.**
1846–77. Fauna littoralis Norvegiae. *3 pts. folio. col. illust.* *Christiania and Bergen.*
In Swedish, German, and French. Succeeded by *Fauna Norvegiae* by G. O. Sars.

1857. On the littoral fauna of the Mediterranean.
Author's excerpt from the Bergen Museum's *Aarbok,* vol. ix.

1865. Om de i Norge forekommende fossile dyrelevninger fra qvartaerperioden, et bidrag til vor faunas historie. *4to. pp. 8+134. 4 pl.* *Christiania.*

SARTORIUS, JOHANNES CHRISTOPHORUS (Engraver).
1718. Thierbuch, Oder; Merckwürdige Beschreibung Der Thieren und Vogeln, etc. *2 pts. 4to. many copper pl.* *Caspar Wussin, Prag.*
This is a very rare atlas of animals with descriptive text. Not in *Cat. Br. Mus.* (*Nat. Hist.*).

SARWEY, *Major-General* VON.
1890. Von den Vogelen zum Balkan. *2 vols. 8vo. illust.* *Magdeburg.*

SATCHELL, THOMAS. **1883.** *See* WESTWOOD, THOMAS.

SAUNDERS, ARETAS A.
1929. Bird Song. *8vo. pp. 201. 83 figs. in text.* Separate edition of *New York State Museum Handbook.* *Albany.*
A most useful and informing work on the subject, of local birds.

SAUNDERS, HOWARD [1835–1907].
1877. Catalogue des oiseaux du midi de l'Espagne. *4to. pp. 57.* *Paris.*
Author's excerpt on the birds of Central and Southern Spain. Altogether 339 species are briefly but carefully catalogued with their synonymies and occasional notes on habits and distribution. The author acknowledges the assistance of Irby and Lord Lilford, both of whom have written on certain aspects of his subject. From the Godman Library, originally a presentation copy to Osbert Salvin.

1879. *See* ROYAL SOCIETY OF LONDON.

1881. Varidae collected during the 'Challenger' expedition. *See* THOMSON, C. W. and MURRAY, J.

1882–5. A history of British birds. *See* YARRELL, W.

1887. A list of British birds, revised to April, 1887. For labelling specimens or for reference. *8vo. pp. 22.* *London.*
A revised edition appeared in 1892.

1889. An illustrated Manual of British Birds. *pp. 40+754. num. text-figs. index.* *London.*
This treatise is one of the best works on the subject. Saunders was a principal contributor to Yarrell's *History of British Birds* and some of the illustrations and part of the text in this work are derived from that source. A useful diagnosis of orders and genera forms the introduction. The present volume has an A.L.S. from the author on 'Long-tailed Ducks'. A second edition was issued in 1899.

1892. The birds of Lancashire. *See* MITCHELL, F. S.

1892. A list of British birds, revised to July, 1892. *8vo. pp. 24.* *London.*

******** and **SALVIN,** OSBERT.
1896. Catalogue of the Gaviae and Tubinares in the British museum. Gaviae (terns, gulls, and skuas) by Howard Saunders. Tubinares (petrels and albatrosses) by Osbert Salvin. *8vo. pp. xv+475. 8 pl. (col.). 60 figs. append. addend. 2 indexes.* *London.*
Forming vol. 25 of the *Catalogue of the Birds in the British Museum.* The collection consists of 115 species of Gaviae and 109 of Tubinares, represented by 5,735 specimens.

1899. An illustrated manual of British birds. *8vo. pp. 40+776. 3 maps. 384 figs. append. index.* *London.*
Issued in 20 parts as a revised edition of the 1889 edition, and by many regarded as the best work of its kind ever published.

******** and **CLARKE,** WILLIAM EAGLE.
1927. Manual of British birds. 3rd ed. *8vo. pp. viii+834. 405 figs. index.* *London.*

SAUNDERS, MARGARET MARSHALL [1861–].
[**1919**]. Golden Dicky; the story of a canary and his friends. *12mo. pp. xi+280. front. (col.). T. of c.* *New York.*

SAUSSURE, HENRI LOUIS FRÉDÉRIC DE.
1858. Observations sur les mœurs de divers oiseaux du Mexique. *8vo. pp. 55. 1 pl.* *Genève.*
Interesting account of eagles, woodpeckers, and other Mexican birds. Repaged excerpt from the *Archives de la Bibliothèque Universelle de Genève.* Presentation copy to Prof. Cabanis.

SAUVAGE, HENRI ÉMILE [1844–].
1875–1900. *See* GRANDIDIER, A. Histoire physique de Madagascar.

1891. Histoire naturelle des poissons. *folio. pp. 543. 63 pl.* *Paris.*

SAVI, PAOLO [1798–1871].
1827–31. Ornitologia Toscana. *3 vols. 8vo. illust.* *Pisa.*

SAVIGNY, MARIE JULES CÉSAR LELORGNE DE [1777–1851].

1805. Histoire naturelle et mythologique de l'ibis. *8vo. pp. 14+224. 6 col. pl.* *Paris.*

A learned essay on the Ibis, with observations made during the author's sojourn in Egypt. A rare book, the present copy from the library of the Earl of Northesk.

****** and others.**

1809–22. Description d'Égypte; ou Recueil des observations et des recherches qui ont été faites en Égypte pendant l'éxpédition de l'armée française, [1798–1801]. *double elephant folio. 9 vols.* text. *10 vols.* plates. *Paris.*

This magnificent work has been referred to several times and in part described and collated in this *Introduction*. The fine, full-page plates of the birds and some other animals are colored in the present copy of the original publication (from the Blacker Library), but are plain in the reprinted *Système des Oiseaux* that appeared as a second edition several years later.

1810. Oiseaux de l'Égypte et de la Syrie. Partie systématique. Système des Oiseaux de l'Égypte et de la Syrie, présenté à l'Assemblée générale de la Comission, le 29 Août, 1808. *folio. pp. 54. 14 pl. (folded double el. folio).*

A repaged print of the ornithological portion of the celebrated *Description de l'Égypte*, the report of the scientific aspects of the first Napoleon's ill-fated expedition. The accompanying (uncolored) plates are folded to fit the smaller size of the *Système*. The treatise furnishes a complete, systematic description of 27 birds of prey. In some instances, however, the text is abbreviated and the external characters of the beautiful plates are not fully brought out.

1810. Observations sur le système des oiseaux de l'Égypt et de la Syrie. *folio. pp. 2+11.* *Paris.*

A defence of the statements made by Savigny in the ornithological portion of the *Description de l'Égypte publiée par les ordres de Napoleon-Le-Grand*. It is not an integral part of that great work although the present copy is bound with the (uncolored) plates of the *Description*, and a copy of the author's *Système des Oiseaux de l'Égypte et de la Syrie*.

1883. Audouin's explication sommaire des planches d'Oiseaux de l'Égypte et de la Syrie publiées par J. C. Savigny. *8vo.* Reprint. *See* WILLUGHBY SOCIETY.

SAVILE, FRANK.

1925. The river of the Giraffe. *8vo. pp. 7+217. 12 pl. index.* *London.*

Some account of the experiences of four persons on the banks of the White Nile. Their principal object seemed to be the useless and senseless slaughter of beautiful and harmless 'big game', such as antelopes, giraffes, etc. The Compiler, in common with other students of wild African mammals, wonders how long every 'sportsman' who can afford a gun and an escort will be allowed to devastate the country, and when the white settlers of the Continent will be able effectively to protest against this continual and stupid extermination of their native fauna. At least, the perpetrators of such evil deeds might henceforth have the decency to refrain from writing a book about them.

SAVILLE-KENT, WILLIAM.

1897. The naturalist in Australia. *4to. pp. xv+302. front. 60 pl. (5 col.). 104 figs. append. index.* *London.*

An unusually attractive and well-written work with many scientific discussions of faunal life problems.

[**1901–2**]. *See* CORNISH, C. J., *ed.*

SAXBY, HENRY LINCKMEYER [1836–73] and **SAXBY,** STEPHEN H.

1874. The birds of Shetland. *8vo. pp. xv+398. 8 pl. append. index.* *Edinburgh.*

SAY, THOMAS [1787–1834]. **1825.** *See* KEATING, W. H.

SCAMMON, CHARLES MELVILLE [1825–].

1874. The marine mammals of the north-western coast of North America, described and illustrated: together with an account of the American whale-fishery. *folio. pp. 319. 26 pl.* *New York.*

SCHACHT, HEINRICH.

1877. Die Vogelwelt des Teutoburger Waldes. *8vo. pp. 12+268. text-figs. T. of c.* *Detmold.*

A popular account, from personal observation, of the avifauna of the Teutoburg forest. From the Cabanis-Reichenow collection, in which, also, is a copy of the second, 1907, edition.

1885. Aus dem Vogelleben der Heimat; Ornithologische Vorträge. *pp. 2+302.* *Detmold.*

From the library of Prof. Reichenow.

1907. Die Vogelwelt des Teutoburger Waldes. 2nd ed. *12mo. pp. 8+269. 30 col. pl.* *Lemgo.*

SCHAECK, F. DE.

1924. Les Oiseaux du Port de Genève. *8vo. pp. 71. 46 text figs. index.* *Genève.*

SCHAEFFER, JAKOB CHRISTIAN [1718–90].

1760. Epistola . . . de studii ichthyologici faciliori ac tutiori methodo. *8vo. pp. 24. col. illust.* *Ratisbonae.*

A rare tract by an early entomologist who occasionally wrote on vertebrate zoology. The title in hand is not in the *Cat. Br. Mus. (Nat. Hist.)*.

1761. Piscium Bavarico-Ratisbonensium pentas, etc. *8vo. pp. 12+82. 4 col. pl.* *Ratisbonae.*

1774. Elementa ornithologica iconibus vivis coloribus expressis illustrata. *4to. pp. viii+(80). 70 pl. (col.). index.* *Ratisboniæ.*

The work is divided into four sections, one of which describes Bavarian birds. A second edition appeared in 1779.

1779. Elementa ornithologica iconibus . . . illustrata. 2nd ed. Unpaged atlas. *folio. ff. 44. 70 hand-col. pl.* *Ratisbonae.*

SCHÄFF, ERNST ASCAN FRIEDRICH WILHELM [1861–].

1891. Ornithologisches Taschenbuch für Jäger und Jagdfreunde. *8vo. pp. 10+193. 18 text-figs. index.* *Neudamm.*

Observations on the natural history of such German birds as find favor with hunters and persons of that ilk. A presentation copy to Prof. Nehring from the author.

1893. Anleitung zum Bestimmen der deutschen Tag-Raubvögel nach dem Fängen (Füssen). *8vo. pp. 35. 21 figs.* *Berlin.*

'Birds of Prey' (many of them quite harmless and often useful) are destroyed in great numbers every year and their feet are sent in for the payment of the premium offered for their destruction. This pamphlet shows how the birds may be identified by their legs and the proper reward adjudicated.

1905. Ornithologisches Taschenbuch für Jäger und Jagdfreunde. *8vo. pp. 12+210. 67 text-figs. index.* *Neudamm.*

Second edition. The copy in hand is from the Cabanis-Reichenow collection.

[**1908**]. Unser Flugwild. *12mo. pp. 110.* *Stuttgart.*

SCHAFFER, P. ALEXANDER.

1904. Pfarrer P. Blasius Hanf als Ornitholog. *8vo. pp. 10+382. illust. index.* *St. Lambrecht.*

SCHAGER, CARL HENRIK [1865–].

1920. Svenskt fiskerilexikon. *8vo. pp. 520.* *Stockholm.*

SCHALOW, HERMAN.

1869–96. Anton Reichenow; ein Verzeichniss seiner bisherigen Arbeiten 1869–96. *8vo. pp. 6+28.* *Berlin.*

Bibliography of 359 titles contributed to ornithological literature by Prof. Anton Reichenow, to whom the copy in hand formerly belonged.

1904. (Die) Vögel der Arktis. *folio. pp. 212. pl.* *Jena.*

Provided with separate wrapper and title this excerpt from the 5-volume *Fauna Arctica* of Römer and Schaudinn was issued as a 'Nicht im Buchhandel', the copy in hand having been presented by the author to the editor of *The Auk*. 270 birds of the Arctic Ocean and its islands are fully described.

1919. Beiträge zur Vogelfauna der Mark Brandenburg. *4to. pp. 2+602. 13 pl. index.* *Berlin.*

A detailed account of the avifauna of Brandenburg. The present copy is a gift from the author to Dr. Ant. Reichenow.

SCHANNING.

1928. Birds from the North-Eastern Siberian Norwegian North Polar Expedition 'Maud' 1919–25. *Scientific Results,* vol. V, no. 6.

SCHANTZ, ORPHEUS MOYER.

1928. Birds of Illinois. *8vo. col. map. many figs. in text. index.* *Springfield, Ill.*

A useful guide to local bird life, by a practical ornithologist.

SCHARFF, ROBERT FRANCIS [1858–].

1899. The history of the European fauna. *8vo. pp. vii+364. 21 figs. index.* *London.*

One of the volumes of *The Contemporary Science Series*, edited by Havelock Ellis.

1907. European animals: their geological history and geographical distribution. *8vo. pp. xiv+258. 71 figs. append. index.* *London.*

1911. Distribution and origin of life in America. *8vo. pp. xvi+497. 21 figs. bibliogr. index.* *London.*

SCHAUDINN, F. R. [1871–1906], and **RÖMER,** F.

1900–10. Fauna Arctica. *See* RÖMER, F. and SCHAUDINN, F.

SCHEIDT, LEOPOLD.

1902. Vögel unserer Heimat. *8vo. pp. 16+252. 8 col. pl. 65 text-figs. index.* *Freiburg-im-Breisgau.*

The first edition of this popular treatise on the domestic birds of Germany appeared in 1890. This second edition is much enlarged and improved.

SCHEMBRI, ANTONIO.

1843. Catalogo ornitologico del gruppo di Malta. *8vo. pp. 136. 1 pl. index.* *Malta.*

1843. Quadro geografico-ornitologico, ossia quadro comparativo; le ornitologie di Malta, Sicilia, Roma, Toscana, Liguria, Nizza, e la provincia di Gard. *4to. pp. 66.* *Malta.*

SCHEPELMANN, EMIL.

1906. Über die gestaltende Wirkung verschiedener Ernährung auf die Organe der Gans. *8vo. pp. [4]+41. 23 figs. in text.* *Leipzig.*

A well-illustrated, anatomical, and physiological brochure on the internal organs of the domestic goose.

SCHERREN, HENRY.

[1905]. The Zoological society of London; a sketch of its foundation and development and the story of its farm, museum, gardens, menagerie and library. *8vo. pp. xii+252. 12 col. pl. 50 pl. 77 text-figs. index.* *London.*

SCHEUZER, JOHANN JACOB [1672–1733].

1716–18. Helvetiae historia naturalis. (In Latin and German.) *3 pts. 4to.* *Zürich.*

SCHILLING, WILHELM.

1822. Beiträge zur Vögelkunde. *8vo. See* BREHM, C. L.

SCHILLINGS, CARL GEORG [1866–].

1905. Mit Blitzlicht und Büchse . . . der Thierwelt von Aequatorial-Ostafrika. *8vo. pp. xvi+550. 23 pl. 1 portr. illust. text.* *Leipzig.*

The first edition of this important account of East African fauna appeared in 1904. P. Matschie described the mammals collected during the expedition; A. Reichenow the birds.

******** and **WHYTE,** FREDERIC, *translator.*

1907. In wildest Africa. With over 300 photographic studies direct from the author's negatives. *8vo. pp. xvi+716. 195 pl. 90 figs.* *New York.*

SCHINZ, HEINRICH RUDOLF [1777–1861].

1815. *See* MEISNER, C. F. A.

1819. Beschreibung und Abbildung der künstlichen Nester und Eier der Vögel, welche in der Schweiz, in Deutschland und den angränzenden Ländern brüten. *2 pts. pp. 8+147. 73 col. pl.* *Zürich.*

Originally issued in 13 parts.

1827–32. Naturgeschichte und Abbildungen der Säugethiere. *28 pts. folio. pp. 4+349+8. atlas. 168 pl.* *Zürich.*

The first edition (quite rare) was issued in (29 parts) 1824–9; and there is still another printing of this important treatise and Atlas, published in 1840. Parts of the work have also been issued separately.

1830. Naturgeschichte und Abbildungen der Vögel-Gattungen; nach der Natur. *2 vols. folio.* Vol. I, *pp. 36+445.* Vol. II. *pp. 13. 144 pl. T. of c.* *Zürich.*

This large, well-illustrated work is something more than a mere translation of the ornithological part of Cuvier's *Règne Animale* upon which it is evidently based. The text and the illustrations by Brodtmann show many signs of originality; hence it is treated here as a distinct monograph. This Zürich, 1830, edition must be quite rare; it is not listed in any of the larger catalogues accessible to the Compiler.

1836. Naturgeschichte und Abbildungen der Fische. *folio. 97 col. pl.* *Schaffhausen.*

A well-illustrated, systematic monograph.

1837. Verzeichniss der in der Schweiz vorkommenden Wirbelthiere. *4to. pp. 165. illust.* *Neuchâtel.*

Author's reprint.

1840. Europäische fauna; oder Verzeichniss der wirbelthiere Europa's. *2 vols. 8vo.* *Stuttgart.*

1853. Naturgeschichte der Vögel, etc. 2nd ed. *2 vols., text and atlas. folio.* *Zürich.*

This well-known treatise, with several hundred colored figures, forms an enlarged and improved edition of the original (1830) publication. The Atlas has 127 plates, all but two colored.

SCHINZE, GEORGE.

1844. On the history, rearing, treatment, diseases and cures of piping bullfinches and German canary birds. *16mo.* *Bristol.*

SCHIØDTE, JØRGEN MATTHIAS CHRISTIAN [1815–84].

1878–1907. Zoologica Danica. Afbildninger af Danske Dyr med. populær Text. Hfte. 1–12. *4to. pp. 968. 72 col. pl.* *Kjøbenhavn.*

One of the best illustrated treatises on the vertebrate zoology of Denmark.

SCHIØLER, E. LEHN [1874–1929].

1925–6. Danmarks Fugle. Med henblik paa de i Grønland, paa faerøerne og i kongeriget island forekommende arter. *2 vols. folio. bibliogr.* *Kjøbenhavn.*

The most comprehensive and best illustrated work on the Birds of Denmark and its European dependencies yet published. Herluf Winge contributes an article on the remains of birds in kitchen-middens. Vol. II contains an appendix to both volumes. A brief collation shows:
Vol. I, 1925, *pp. 552. pl. 98 (55 col.). 160 figs. in text (10 col.). index.*
Vol. II, 1926, *pp. 338. pl. 86 (46 col.). 117 figs. in text. 5 maps. index.*

SCHLAG, F.

1904. Der Dompfaff. *8vo. pp. 55. T. of c.* *Magdeburg.*

The fifth edition of a popular small work on the Bullfinch (*Pyrrula vulgaris*).

SCHLEGEL, HERMANN [1804–84].

1833–50. *See* SIEBOLD, P. F. VON. Fauna Japonica.

1839–45. *See* MÜLLER, S. and SCHLEGEL, H.

1841. *See* WAGNER, M. F.

1844. Kritische Uebersicht der Europäischen Vögel. *2 pts. 8vo. pp. 135+116. Leiden and Paris.*

The text and title-page are in French and German, several new forms being described. The copy in hand is from the Godman Library.

1844. *See* MÜLLER, SALOMON.

1850. *See* SIEBOLD, P. F.

1860–78. Natuurlijke historie van Nederland. De Dieren van Nederland. *6 vols. 8vo.* (Wanting.) *Haarlem.*

On the whole the most comprehensive systematic treatise on the vertebrate fauna of the Netherlands. The mammals (1862) are described in *pp. 2+8+133, 20 col. pl.*; birds (1868), *pp. 71+263, 18 col. pl.*; fishes (1862), *pp. 12+12+211, 21 pl.*; reptilian forms and amphibia (1862), *pp. 43, 11 col. pl.* The section on birds went to a second edition at Amsterdam, 1878.

1860. De dieren van Nederland. Gewervelde dieren. Vogels. (*Natuurlijke Historie van Nederland.*) 2nd ed. *2 pts. 8vo. pp. 72+263. 53 col. pl.* *Haarlem.*

1862–1908. Rijksmuseum van Natuurlijke Historie. Muséum d'histoire naturelle des Pays-Bas. *14 vols.* *Leiden.*

Issued in 14 parts. The noted author was at one time director of the important Museum whose activities he describes.

1863–6. De vogels Nederlandsch Indië. Les oiseaux des Indes Neerlandaises. In Dutch and French. *3 vols. in 1. 3 pts. pp. 38; 79; 68. 50 pl. (col.). 3 indexes.* *Leiden.*

1878. De vogels van Nederland. Tweede herziene druk. *2 vols. 8vo. col. pl.* *Amsterdam and Haarlem.*

A second, enlarged edition of this well-known treatise on the birds of the Netherlands.

SCHLEGEL, RICHARD.

1925. Die Vogelwelt [269 species] des nordwestlichen Sachenslands. *8vo. pp. v+274. 5 pl. index.* *Leipzig.*

SCHLESISCHE GESELLSCHAFT FÜR VÄTERLANDISCHE KULTUR. Naturwissenschaftliche Sektion. 1851?–80? *Breslau.*

SCHLESISCHE JAHRBÜCHER FÜR GEISTES- UND NATURWISSENSCHAFTEN. 1922–4. *Breslau.*

SCHLESWIG-HOLSTEINISCHE NATUR- UND VOGELSCHUTZBLÄTTER. Zeitschrift des Natur- und Vogelschutzvereins für Schleswig-Holstein-Lauenberg.

1912. Jahrgang I. 4 nos. [all pub.?]. *8vo.* *Kiel.*

SCHLEY, FRANK.

1877. American partridge and pheasant shooting. *8vo. pp. 222. 8 pl.* *Frederick, Md.*

One of the usual books informing the public how most effectually to slaughter some of their most beautiful birds. The author says it was 'written by himself', but he does not, nevertheless, disdain lengthy quotations (about 40 pp.) 'lifted' from Baird, Brewer and Ridgway's *Land Birds* of 1874.

SCHMARDA, LUDWIG KARL [1819?–89].

1853. Die geographische Verbreitung der Thiere. *8vo. pp. 8+755. col. map.* (Wanting.) *Wien.*

Probably this naturalist's excellent treatise was in part the outcome of his journey around the world. At any rate, his observations are regarded as among the fundamentals of zoogeography.

1865–83. Bericht ueber die geographische Verbreitung der Tiere. Jahrg. I–X.

The Blacker Library has only the first ten numbers of this important serial.

1871–2. Zoologie. *2 vols. 8vo. illust.* *Wien.*

This, the first edition of a well-known textbook, is quite rare; at least a second edition (q.v.) (1877–8), considerably improved, was issued.

1877–8. Zoologie. 2te umgearbeitete Aufl. 2nd ed. *8vo.* *Wien.*

SCHMEIL, FRANZ OTTO [1860–].

1901. Text-book of zoology, treated from a biological standpoint; tr. from the German by Rudolf Rosenstock, ed. by J. T. Cunningham. *4to. pp. 16+493. illust.* *London.*

SCHMID, BASTIAN [1870–].

[1921]. Liebe und Ehe im Tierreich. *8vo. pp. 111. illust.* *Leipzig.*

On the sexual relations of animals, their loves, courtships, and mating.

1922. Die Säugetiere, etc. 2nd ed. *8vo. 29 col. pl.* *Wiesbaden.*

1924. Die Vögel. 2nd ed. *8vo. pp. 8+158. 30 col. pl. 49 text-figs.* *Wiesbaden.*

SCHMIDT, EDUARD OSCAR [1823–86].

1884. Die Säugethiere in ihrem Verhältniss zur Vorwelt. *8vo. pp. 12+280. text-figs.* *Leipzig.*

SCHMITT, JOSEPH.

1904. Monographie de l'île d'Anticosti (Golfe Saint-Laurent). *4to. pp. 6+370. 35 pl.* *Paris.*

The zoology is fairly well described.

SCHNEIDER, GEORG.

1930. Handbuch der Bibliographie. *4to. Auf. 8vo. pp. 9+674. index.* *Leipzig.*

SCHNEIDER, GUSTAV [1833–99].

n.d. Die Vogelfauna Sumatras, mit Demonstrationen und Streiflichtern über die übrige Tierwelt und die Pflanzen dieser Gegenden. *8vo. pp. 14.* *Basel.*

SCHNEIDER, JOHANN GOTTLOB. [1750–1822].

1783. Allgemeine Naturgeschichte der Schildkröten, nebst einem systematischen Verzeichnisse der einzelnen Arten. *8vo. pp. 364. 2 pl.* *Leipzig.*

1788. *See* FREDERICK II.

SCHNEIDER, KARL CAMILLO.

1911. Einführung in die Deszendenstheorie. 2nd ed. *4to. pp. 12+387. illust.* *Jena.*

SCHOEDLER, Friedrich Karl Ludwig [1813–84].

1853. The book of nature: an elementary introduction to the sciences of . . . zoology, etc. 1st American ed., from the 2nd English ed., tr. from the 6th German ed. by Henry Medlock. *8vo. pp. xii+691. 697 figs. index.* *Philadelphia.*

A second edition appeared in London, 1862.

SCHOEPF, Johann David [1752–1800].

1792. Naturgeschichte der Schildkröten. *folio. pp. 12+160. 35 pl.* *Erlangen.*

This is the German rendering of the author's *Historia testudinum*, of the same date, essays on turtles in general.

1792–[1801]. Historia Testudinum. *4 pts. folio. pp. 12+136. 35 pl.* *Erlangae.*

SCHOMBURGK, Moritz Richard [1811–91].

1847–8. Reisen in Britisch-Guiana in . . . 1840–44, etc. *3 pts. 8vo.* *Leipzig.*

The natural history of British Guiana, which means practically that of northern South America, is bound up with the explorations and numerous reports of the Schomburgk family. The publication of the present volume was largely due to the assistance and annotations of Sir Robert H. Schomburgk [1804–65], while the latter's account of his own *Reisen in Guiana und am Orinoko während . . . 1835–9* was published in Leipzig, 1841, by O. A. Schomburgk. Altogether they present an admirable review of the flora and fauna of the countries visited; the amphibia and fishes by J. Müller and F. H. Troschel, the mammals and birds by J. Cabanis. The original manuscript of a translation (see 1922–3) of the present treatise into English by the Compiler's friend, Dr. Walter Roth, Director of the British Guiana Museum in Georgetown, was presented to the E.S.W. Library by the translator himself.

1922–3. Travels in British Guiana, 1840–44; tr. [from the Germ.] and ed. with geographical and general indices and route maps by W. E. Roth. *2 vols. 8vo.* Vol. I, *pp. 38+402. 8 pl. 4 maps. 2 figs. 2 indexes.* Vol. II, *pp. (12)+443. 8 pl. 7 maps. index.* *Georgetown.*

SCHOMBURGK, Robert Hermann [1804–65].

1847–8. *See* SCHOMBURGK, MORITZ RICHARD.

SCHONEVELDE, Stephanus A.

1624. Ichthyologia et Nomenclaturae Animalium marinorum, etc. *4to. pp. 87. 7 pl.* *Hamburgi.*

A rare work on north European fishes and some original remarks on their nomenclature.

SCHOOEK, Martin [1614–69].

1661. Martini Schooekii de Ciconiis Tractatus. Editio altera, priori auctior et emendatior. *12mo. pp. 82+6. T. of c.* *Amstelaedami.*

This rare, curious, and interesting little work enters fully into all that was known of the stork from the earliest times to the middle of the seventeenth century, especially 'apud Latinos, Graecos et Ebraeos'.

SCHÖPFFER, H. **1896.** *See* FREDERICK II, *Emperor of Germany.*

SCHOTT, Gaspar [1608–66].

1697. Physica curiosa; sive, Mirabilia naturae et artis libris XII comprehensa. *8vo. pp. 36+1390+20. 60 pl.* *Herbipoli.*

A very rare, early treatise (with nothing original) on natural history and other subjects.

SCHOUTEN, Gautier [–*c.* 1680].

1708. Voiage de Gautier Schouten aux Indes Orientales, etc.

Several editions and translations of this work have appeared, among them one in German dated 1754. The title above seems to be quite rare.

SCHRAGER, Carl H.

1920. Svenskt fiskerilexikon. *8vo.* *Stockholm.*

A Swedish dictionary of terms used in piscine literature and commerce.

SCHREBER, Johann Christian Daniel von [1739–1810].

[1774]–1846. Die Säugethiere in Abbildungen nach der Natur, mit Beschreibungen. *7 pts. 4to. col. illust.* (*? 347 pl.*) *Leipzig.*

This title may be regarded as of the second edition (the first, 1774–1810) of a truly admirable treatise on world mammalogy. It was issued and printed, with the collaboration of D. A. Goldfuss and J. A. Wagner, and a *Supplementband*, published in five sections by J. A. Wagner (q.v.), so that the whole work forms a reliable, systematic history of mammals for three-quarters of a century.

1840–4. Die säugthiere in abbildungen nach der natur, mit beschreibungen. . . . Fortgesetzt von Johann Andreas Wagner . . . Supplementband, 1–5 abth. *4to. col. illust.* *Leipzig.*

SCHREIBER, Egid.

1875. Herpetologia Europaea. Eine systematische Bearbeitung der Amphibien u. Reptilien, welche bisher in Europa aufgefunden sind. *8vo. pp. 17+639. text-figs.* *Braunschweig.*

A valuable, scientific contribution to European herpetology presented in systematic form by an acknowledged authority.

1912–13. Herpetologia europaea. Eine systematische Bearbeitung der Amphibien und Reptilien, etc. 2te Auflage. *8vo. pp. 960. 188 text-figs. index.* (*Nachtrag, pp. 54.*) *? Jena.*

This edition is regarded by some as the best German textbook on the subject yet issued. It treats the entire field in a scientific yet very readable manner.

SCHRENK, Peter Leopold von [1826–94].

1858–1900. Reisen und Forschungen in Amur-Lande in . . . 1854–56. *4 vols. 4to. col. illust.* *St. Petersburg.*

This excellent account of the fauna of Manchuria was issued serially. Vol. I, containing an account of the vertebrates (only birds and mammals are systematically described), was published in 1858–60.

SCHRIFTEN D. GESELLSCHAFT NATURFORSCHENDER FREUNDE, BERLIN.

1780–94. (All pub.) *See* GESELLSCHAFT . . . FREUNDE.

SCHRIFTEN . . . DER NATURFORSCHER. GESELLSCH. BEI DER UNIVERSITÄT D. DORPAT.

1884–1925. Vols. I–XXIV. *See* TARTU, ESTONIA.

SCHROEDER, Johann [1600–64].

1659. Ζωολογία; or the History of Animals . . . in Physick and Chirurgery. Tr. from the German by T. Bateson. *4 pts. 8vo. pp. 6+159.* [O. 3937.] *London.*

SCHRÖTER, Fr.

1878. The homoeopathic poultry physician (poultry veterinarian); or, Plain directions for the homoeopathic treatment of the ailments of fowls, ducks, etc. *16mo. pp. 9+84.* *New York.*

SCHUBERT, Gotthilf Heinrich von [1780–1860].

?1860. Naturgeschichte der Reptilien, Amphibien, Fische, etc. 10th ed. *8vo. 30 col. pl.* *? Esslingen.*

n.d. Naturgeschichte der Vögel. 9te Auflage. *folio. pp. 22. 30 pl.* (*col.*). *47 figs. 2 indexes. Esslingen.*

SCHULTZE, LEONHARD SIGISMUND.
1908–14. Zoologische und anthropologische Ergebnisse . . . im westlichen und zentralen Südafrika, etc. *5 vols. 4to. maps. col. illust.* *Jena.*
A valuable treatise on African natural history based on travels in the dark continent during 1903–5. It constitutes five volumes of *Denkschriften* of the Jena *Med.-Naturwiss. Gesellschaft.*

SCHULTZE, LEONORA.
1884. The speaking parrots. *See* RUSS, KARL.

SCHULZ, GEORG E. F.
1908–9. Natur-Urkunden; Biologisch erläuterte photographische Aufnahmen frei lebender Tiere und Pflanzen. *2 vols. 8vo.* Vol. I, *pp. 20. 20 pl.* Vol. II, *pp. 16. 20 pl.* *Berlin.*
Wonderful photographs of nesting birds.

SCHULZE, ELIZA J.
[**1879**]–**86.** Illustrations of the nests and eggs of birds of Ohio. *See* JONES, H. E.

SCHULZE, FRANZ EILHARD [1840–1921], *ed.*
1896–*date.* Das Tierreich. Eine Zusammenstellung . . . der rezenten Tierformen. Herausgegeben von der Deutschen Zoologischen Gesellschaft. *8vo.* (Wanting.) *Berlin.*
This extensive treatise on general zoology has been issued in parts with the collaboration of well-known German zoologists.

1926–7. Nomenclator animalium generum et subgenerum. *See* AKADEMIE D. WISSENSCHAFT. *Berlin.*

SCHULZE, PAUL.
1928. Biologie der Tiere Deutschlands. Lief. 1–23. *illust.*

SCHUMACHER, J. H.
1773. De cultu animalium inter Aegyptos et Judaeos. *Braunschweig.*

SCHÜPBACH, P.
1905. Beitrage zur Anatomie und Physiologie der Ganglienzellen im Zentralnervensystem der Taube. (Bern University thesis.) *8vo. pp. 38. 1 pl. (col.). 2 figs. bibliogr.* *München.*

SCHÜSTER, M. T.
[**1883**]. Der Papageien-Freund; Beschreibung, Pflege, Zucht, Abrichtung, etc., sämmtlicher bis jetzt bekannten Papageien. 3rd ed. *12mo. pp. 148. index.* *Ismenau in Thüringen.*

SCHÜSTER, WILHELM.
1906. Wertschätzung der Vögel. *8vo. pp. 4+92. illust. index.* *Gera.*
An able effort to appraise the value of bird life from various standpoints. The colored blocks, representing the 'advantages and disadvantages' of certain species, are quite ingenious. It is a book to be read carefully by the student of bird protection.

1907. Deutsche Käfigvögel: zur Pflege d. heimischen Singvögel. *8vo. pp. 11+71. 10 pl. text-figs.* *Berlin.*

n.d. Vogelhandbuch. *8vo. pp. 8+98. 70 text-figs. T. of c.* *Berlin.*

SCHUTZ, FEDERICO. **1890.** *See* STEMPELMANN, HUGO.

SCHUYL, FRANCIS. **1732.** *See* LEIDEN UNIVERSITY.

SCHWALBE (DIE). (K.k. Zoologisch-Botanische Gesellschaft in Wien.) (Ornithologische Section.) *Vienna.*
1775–81. Preceded by Ornithologischer Verein in Wien.

SCHWALBE, DIE. The quarto issues of this periodical are described under *Mittheil. d. Ornith. Verein, Wien.* The three Neue Folge folio volumes form the *Berichte des Comités für Ornithologische Beobachtungs-Stationen in Oesterreich* Redigirt von Ludwig Ritter Lorenz von Liburnau. Neue Folge I, 1898–9; Neue Folge II, 1900–1; Neue Folge III, 1902–13. (All pub.)
This periodical gives a good account of the migration of birds in Austria and other parts of Central Europe. Contributions by such trained observers as Ludwig von Lorenz, A. Defant, R. Litschauer, W. Čapek, and others will be found in this magazine, that came to such an untimely end with the World War.

SCHWARZ, EUGENE AMANDUS and **BARROWS,** W. B.
1895. The common crow of the United States, *See* BARROWS, W. B. and SCHWARZ, E. A.

SCHWEITZER, CHRISTOPHER.
1700. Voyages to the East Indies. *See* FRYKE, CHRISTOPHER.

SCHWEIZER ARCHIV FÜR TIERHEILKUNDE. **1859**–*date.* *Zürich.*

SCHWEIZERISCHE BLÄTTER FÜR ORNITHOLOGIE. Edited by F. Wirth, Zug, Switzerland, 1877–1915. Bimonthly at first, then weekly. Vols. I–XXXIX. Change of title in 1895 to *B.f.O. und Kaninchenzucht.*

SCHWEIZERISCHE BLAETTER FUER ORNITHOLOGIE UND KANINCHENZUCHT. *See* SCHWEIZERISCHE BLÄTTER FÜR ORNITHOLOGIE.

SCHWEIZERISCHE NATURFORSCHENDE GESELLSCHAFT.
—— Actes (*see* Verhandlungen).
1824–5. Annalen. *Bern.*

1880–1909. Comptes rendus des travaux.

1829–33. Denkschriften.

1837–*date.* Neue Denkschriften. *Zürich.*

1817–*date.* Verhandlungen.

1817–22. Naturwissenschaftlicher Anzeiger. *Bern.*

?–1920. Schweizerische Gesellschaft für anthropologie und ethnologie.

SCIENCE. *Cambridge, Mass.*
1883–94.

1895–*date.* New series.
Since 1901, it includes most papers of the *American Association for the Advancement of Science.*

SCIENCE ADVOCATE. (Natural Science Society of Atco, N.J.) **1880–2.**

SCIENCE GOSSIP. *London.*
1865–93. As Hardwicke's Science Gossip.

1894–1902.

SCIENCE LECTURES FOR THE PEOPLE.
1883–5. Series I–XI. *8vo. Manchester and London.*

These admirable popular essays, the first of which was published in 1866, have been frequently reprinted. Many of them are on subjects of interest in the present compilation, among them (Series I) Thos. Alcock on *Zoology; Four plans of Creation*, 1884; (Series II) *Animal Mechanics*, S. M. Bradley; (Series VII) *Birds of the Globe*, R. B. Sharpe; *Great Extinct Quadrupeds*, P. M. Duncan; (Series X) *Animal Intelligence*, G. J. Romanes; (Series XI) *Age of Dragons*, B. W. Hawkins.

SCIENCE NEWS-LETTER. **1915–30.** *Washington, D.C.*

A valuable 'weekly summary of science', containing much zoological material.

SCIENCE PROGRESS. **1894–8.** *London.*

SCIENCE RECORD; a monthly magazine.
Nov. **1882**–Oct. **1883.** Vol. 1. *8vo. Boston.*

SCIENCES, ART, NATURE. **1888–1905.** *Paris.*

SCIENTIA. *Paris.*
1899–*date.* Série Biologique.

SCIENTIFIC AFRICAN. **1895–6.** *Cape Town.*

SCIENTIFIC AMERICAN. *New York.*
1845–59.

1859–*date.* New series.

SCIENTIFIC ASSOCIATION OF TRINIDAD. *Port of Spain.*
1866–81. Proceedings.

1863–6. Transactions.

SCIENTIFIC AUSTRALIAN. **1893–1924.** *Melbourne, Sydney.*

SCIENTIFIC ENGLISHMAN. **1859.** *London.*

SCIENTIFIC AND LITERARY GOSSIP.
1882–3. A Monthly Magazine of Notes, News and Reviews in Science and Literature. Edited by J. S. Kingsley. Vol. 1, Nos. 1–12 (all pub.). *Boston.*

SCIENTIFIC MEMOIRS.
1837–52. First Series. *5 vols. 59 pl.*

SCIENTIFIC OPINION. **1868–70.** *London.*

SCIENTIFIC RESULTS OF THE SECOND YARKAND MISSION.
1878–91. Based on the collections and notes of F. Stoliczka. *14 pts. 1 vol. folio. illust. Calcutta.* A London printing is dated 1891.

The vertebrate zoology of this famous expedition was well provided for, in parts 4 to 7 inclusive. In part 4 W. T. Blanford described the Mammals (Chiroptera by G. E. Dobson), *pp. 4+94, 29 col. pl.*, 1879; pt. 5, Aves, by R. B. Sharpe, *pp. 17+153, 24 col. pl.*, 1891; reptilia and amphibia by W. T. Blanford, *pp. 26, 3 pl.*, 1878; ichthyology by F. Day, *pp. 25, 5 pl.*, 1878.

SCIENTIFIC SURVEY OF PORTO RICO AND THE VIRGIN ISLANDS. *See* PORTO RICO AND VIRGIN ISLANDS, SURVEY, **1927**–*date.*

SCILLA, AGOSTINO [1639–1700].
1752. De corporibus Marinis de Glossopetris. *Romae.*

SCLATER, PHILIP LUTLEY [1829–1913].
1851. Synopsis of the genus *Euphonia*, with descriptions of new species. *8vo. pp. 21. Edin.*

This monograph is one of the earliest contributions to zoology made by this talented and versatile naturalist whose writings form so large and important a part of the literature of vertebrate zoology. Like the majority of his monographs, the present title is an author's separate—in this case from *Contributions to Ornithology*, 1851.

1851–7. Miscellaneous ornithological papers. *no t.-p. 20 pts. index.*

An interleaved copy of 20 of the author's ornithological papers with his MS. notes, table of contents, and list of other papers. In the E.S.W. Library.

1853. A synopsis of the Galbulidae. *8vo. pp. 10. Edinburgh.*

A revision, with additions, from Jardine's *Contributions to Ornithology*, 1852. The present copy is from the author's library, with a manuscript list in his own hand of the Galbulidae plates in his *Monograph of the Jacamars and Puff-birds*, 1879. Inserted are two long letters on the same subject to Dr. Sclater from Émile Oustalet, written in 1879.

1854. Synopsis of the fissirostral family Bucconidae. *pp. 24. 4 pl. (col.). London.*

Reprinted, with additions, from the *Annals and Magazine of Natural History*, 2nd series, 1854. This is an interleaved copy with MS. notes by the author.

1855–7. On the birds received in collections from Santa Fé di Bogota. Three author's reprints. *8vo. pp. 38+7+6. London.*

According to these three papers the total number of birds known as belonging to the ornithology of the interior of New Granada is upwards of 510. The present copy is an interleaved one with copious marginal and other MS. notes by the author.

1856. Synopsis avium tanagrinarum; a descriptive catalogue of the known species of tanagers. *8vo. pp. (2)+107. London.*

272 species are described, supplemented with copious MS. marginal notes by the author.

1856–70. Birds of Mexico. *8vo. pp. (129). 8 pl. (7 col.). London.*

Excerpts from the *Proceedings of the Zoological Society*; the author's own interleaved and annotated copy from the Godman Library. The work consists of a catalogue of the birds collected by Auguste Sallé in southern Mexico, with descriptions and colored illustrations of new species.

1857–8. A monograph of the [52 species of] birds forming the tanagrine genus Calliste. *8vo. pp. xvii+104. 46 pl. (col.). London.*

Additions to this monograph were made by Sclater in *Ibis*, 1863, pp. 450–3. The present copy is an autographed presentation one from the author to Osbert Salvin.

1860. On the struthious birds living in the Society's menagerie. *4to. pp. 12. 5 col. figs. London.*

Author's reprint (*Zool. Soc. Trans.*, 1860).

1861–2. Catalogue of [his] collection of American birds. *4to. pp. 14+338. 20 col. pl. T. of c. supplement and append. London.*

There are listed in this important catalogue over 4,100 specimens of American birds, representing 2,169 species and 386 type-specimens. The publishers state that only 100 complete and perfect copies of this work have been issued. Some lack the plates.

1861–7. *See* WOLF, JOSEF.

******** and **SALVIN,** OSBERT.
1861–96. A collection of 90 papers on the birds of South and Central America. Author's reprints from various journals, especially *Ibis* and the *Proc. of the London Zoological Soc.*

1863. List of [56] species of Phasianidae. *8vo. pp. iv+15. 13 pl. (col.). London.*

An extra-illustrated excerpt from *Proc. Zool. Soc. Lond.*, April 21, 1863.

[**SCLATER,** P. L. (*contd.*)]

1863. List of the species of Phasianidae. *8vo. pp. iv+15. 17 pl. (col.).* *London.*

This printing differs from the other (1863) work in the addition of four extra colored plates.

******** and **SALVIN,** OSBERT.

1864. Notes on a collection of [273 species of] birds from the Isthmus of Panama. *8vo. pp. 33. pl.* *London.*

Authors' reprint from *Proc. Zool. Soc. London.* This copy is an interleaved one with copious MS. notes in ink, and is repaged. From the Godman Library.

******** and **SALVIN,** OSBERT.

1866–9. Exotic ornithology, containing figures and descriptions of [104] new or rare species of American birds. *folio. pp. vi+204. 100 pl. 12 figs. index.* *London.*

Issued in 13 parts.

1867. Pterylography. *See* NITZSCH, CHRISTIAN LUDWIG.

1868. Descriptions of some new or little-known species of Formicarians. *8vo. pp. 5. 1 pl. 3 figs.* *London.*

Author's excerpt from *Proc. Zool. Soc. Lond.*, 1868.

******** and **SALVIN,** OSBERT.

1873. Nomenclator avium neotropicalium; sive Avium quae in regione neotropica hujusque repertae sunt. *folio. pp. 8+163.* *Londini.*

Synopsis of avian species inhabiting the Americas south of U.S. territory, altogether 3,565 species. Nine new genera and 31 new species are catalogued and described. An important work of reference. The present copy is a present to W. B. Tegetmeier from the authors. A second copy (in the E.S.W. Library) belonged to H. Kirke Swann, and is filled with MS. notes. It also has a printed prospectus of the first proposed treatise (by Swann) on the Birds of South America, merged later in the (unfinished) monograph by Brabourne and Chubb. Still another is Robt. Ridgway's own interleaved copy, with many MS. notes.

********, **SALVIN,** OSBERT, and **BARTLETT,** EDWARD.

[**1873**]. On the [473 species of] birds of Eastern Peru, with notes on their habits by Edward Bartlett. *8vo. pp. 60. 1 pl. (col.). map (col.). 1 fig. bibliogr.* *London.*

Authors' excerpt from the *Proc. Zool. Soc. Lond.* The present copy has numerous marginal MS. notes by P. L. Sclater, to whose library it originally belonged.

1875. On the Curassows now or lately living in the society's gardens. *4to. pp. 16. 14 col. pl.* *London.*

Author's interleaved copy, from *Trans. Zool. Soc. Lond.*, 1875.

1875. On the present state of our knowledge of geographical zoology. *8vo. pp. 49. append.* *London.*

An address delivered to the Biological Section of the British Association at Bristol, August 25, 1875, in which the earth's surface is divided into seven regions, with an account of and reference to the best book or books appertaining to the mammals, birds, etc., of each region.

1876. On the birds collected by Dr. Comrie on the south-east coast of New Guinea during the survey of H.M.S. 'Basilisk'. *8vo. pp. 4. 4 pl. [map.]* *London.*

Author's separate, to which he has added an original map and MS. notes.

1877. Report on the Birds of the 'Challenger' Expeditions. *8vo.* *London.*

1879–82. A monograph of the jacamars and puff-birds, or families *Galbulidæ* and *Bucconidæ*. *4to. pp. 52+171. 55 pl. (col.). 14 figs. index.* *London.*

1879–1915. *See* GODMAN and SALVIN. Biologia Centrali-Americana.

[**1880**]. List of the certainly known species of Anatidae. *8vo. pp. 42. T. of c.* *London.*

******** and **SALVIN,** OSBERT.

1881. On the birds collected in Antarctic America. *See* THOMSON, C. W. and MURRAY, J.

******** and **others.**

1881. Report on the birds collected during the voyage of H.M.S. Challenger in the years 1873–1876. *folio. pp. 4+166. 30 col. pl. index.* *London.*

This section of the famous report on the Zoology of the Challenger expedition is composed of 13 papers by P. L. Sclater, the Marquis of Tweeddale, O. Finsch, T. Salvadori, W. A. Forbes, Osbert Salvin, and Howard Saunders, that were all published elsewhere as well as reprinted in one volume with slight changes in the text. The hand-colored plates are very fine reproductions of original drawings by Smit. The copy in hand is from the Godman Library.

1886. Catalogue of the Passeriformes, or perching birds, in the collection of the British museum. *8vo. pp. xvii+431. 18 pl. (col.). 108 figs. 2 indexes.* *London.*

Vol. XI of the *Catalogue of the Birds in the British Museum.* These three families are represented by 5,494 specimens, which embrace 575 species (101 types), only 30 of which are unrepresented in the Museum.

1888. Catalogue of the Passeriformes, or perching birds, in the collection of the British museum, *continued. 8vo. pp. xix+494. 26 pl. (col.). 69 figs. 2 indexes.* *London.*

Vol. XIV of the *Catalogue of the Birds in the British Museum.* The specimens enumerated total 7,360, referred to 665 species (161 types), leaving only 38 species recognized as probably valid, but unrepresented in the Museum.

1888. *See* JAMES, F. L.

******** and **HUDSON,** WILLIAM HENRY.

1888–9. Argentine ornithology. A descriptive catalogue of the birds of the Argentine republic. *2 vols. 8vo.* Vol. I, *pp. xxiv+208. 10 pl. (col.). 1 fig.* Vol. II, *pp. xv+251. 10 pl. (col.). 18 figs. append. index.* *London.*

This important work treats of 434 species. The description and synonymy of each species are given by Sclater, Hudson supplying notes on habits, song, etc. The latter portion of the work was reprinted in 1920 by W. H. Hudson under the title *Birds of La Plata.* This rare edition was limited to 200 copies for subscribers signed by the authors, of which the copy in hand is No. 17.

1890. Catalogue of the Passeriformes, or perching birds, in the collection of the British museum, *continued. 8vo. pp. xvii+371. 20 pl. (col.). 45 figs. 2 indexes.* *London.*

Vol. XV of the *Catalogue of the Birds in the British Museum.* The collection consists of 4,482 specimens, 531 species, with 172 types.

******** and **SHELLEY,** G. E.

1891. Catalogue of the Picariae in the collection of the British museum. *8vo. pp. xii+484. 13 pl. (col.). addend. 2 indexes.* *London.*

Vol. XIX of the *Catalogue of the Birds in the British Museum.* In this collection (9,231 specimens) 448 species (73 types) are recorded, only 32 of which are not represented in the Museum.

1892. *See* JAMES, HARRY BERKELEY.

1894–6. (The) Royal Natural History. *See* LYDEKKER, RICHARD.

******** and **THOMAS,** M. R. OLDFIELD.

1894–1900. The book of antelopes. *4 vols. 4to. pp. 100. col. pl.* *London.*

The fine colored illustrations were furnished by J. Smit.

1896. A Bibliography of the published writings of P. L. Sclater by G. B. Goode. *8vo. pp. 135. Bull. U.S. Nat. Mus.*, No. 49.

1899. *See* SCLATER, WILLIAM LUTLEY.

1905–14. Genera Avium. *See* WYTSMAN, P.

SCLATER, WILLIAM LUTLEY [1863–].

1881–91. *See* INDIAN MUSEUM, CALCUTTA.

An early work of the author—the well-known son of Philip Lutley Sclater, and (like him) during a considerable portion of his career one of the editors of *Ibis*.

1896. *See* SHELLEY, GEORGE ERNEST.

**** and **SCLATER,** P. L.

1899. (The) geography of mammals. *8vo. pp. 18 +335. illust.* *London.*

The first seven chapters of this volume were written by W. L. Sclater, and published in the *Geographical Journal* (1894–7). The eighth chapter was read by P. L. Sclater at a meeting of the Zoological Society of London in 1897, and subsequently published in the society's *Proceedings*. The remaining chapters have been prepared by P. L. Sclater specially for this work.

**** and **STARK,** A. C.

1900–6. The Fauna of South Africa. *6 vols. 8vo. illust.* *London.*

This important treatise was begun by Stark on the Birds (4 vols.) in 1900 and completed by Sclater in 1906; the Mammals by Sclater, 2 vols., 1900–1. A projected volume on the Reptilia was not published.

1905. Check list of [868 species of] the birds of South Africa, containing additions and corrections since the issue of the successive volumes of the birds in the Fauna of South Africa series. *8vo. pp. 86. bibliogr.* *London.*

Author's separate from *Annals South African Museum*, vol. iii.

1905. *See* FLINT, W.

1912. A history of the birds of Colorado. *8vo. pp. xxiv+576. 17 pl. 1 map. bibliogr. index.* *London.*

A handbook to 392 species of Colorado birds, with a description of their distribution, habits, etc., largely based on notes by Charles E. Aiken and others. Inserted in the present copy is a portrait of P. L. Sclater, and a letter from the author to E. Ingersoll.

1924–30. Systema avium Aethiopicarum; a systematic list of the birds of the Ethiopian region. *8vo.* Pt. I, *pp. 4+304.* 1924. Pt. II, *pp. 305–922.* 1930. *London.*

The system of classification used is that of A. H. Evans in his *Birds* (*Camb. Nat. Hist. Series*). The total number of forms treated is 4,439. An attempt has been made to give appropriate English names to all the birds. The Appendix brings the first part, published in 1924, to 1928. This work is done in conjunction with a conjoint committee of the American and British Ornithologists' Unions.

SCOFIELD, NORMAN BISHOP. *See* UNITED STATES. FISHERY REPORTS, 1898–9.

SCOPOLI, GIOVANNI ANTONIO [1723–88].

1769–[72]. Annus I–(V) Historico-Naturalis. *5 vols. 8vo.* *Lipsiae.*

An interesting early serial by a famous physician-naturalist that contains, however, very little on vertebrate zoology.

1786–8. Deliciae florae et faunae insubricae, seu Novae, aut minus cognitae species plantarum et animalium quas in Insubria austriaca tam spontaneas, quam exoticas vidit. *3 pts. folio. 75 pl.* *Ticini.*

Gems of the flora and fauna of Lombardy, including native and exotic species which have lived there. Contains many type illustrations of importance. Each copper plate was executed at the expense of a separate patron. The book is very rare, the ornithological papers having been reprinted by the Willughby Society (edited by Alfred Newton) in 1882.

1882. Scopoli's Ornithological papers from his Deliciae florae et faunae insubricae (Ticini: 1786–1788). Ed. by Alfred Newton. *4to. pp. 4+20.* *London.*

SCORESBY, WILLIAM [1789–1857].

1823. Journal of a voyage to the northern whale-fishery; including researches and discoveries on the eastern coast of West Greenland. *8vo. pp. 43 +472. 8 pl. (4 maps). append. glossary.* *Edinburgh.*

The third appendix gives a list of animals (including 17 species of birds), with notes by R. Jameson and T. S. Traill.

1862. The Whaleman's Adventures in the Southern Ocean. *12mo. pp. 304. illust.* *London.*

SCOTIA, VOYAGE OF THE. 1908–10. *See* SCOTTISH OCEANOGRAPHICAL LABORATORY.

SCOTT, G. C.

[1875]. Fishing in American Waters, etc. *8vo. pp. 539. illust.* *New York.*

The library has also an edition of 1869, New York.

SCOTT, GEORGE G.

1930. The Science of Biology. Revised ed. *8vo. pp. 20+653. text-figs. index.* *New York.*

One of the best textbooks on the subject. The biologic relations, morphology, histology, phylogeny, etc. of the vertebrata are fully and properly dealt with; an admirable handbook for the advanced student.

SCOTT, H. H. and **LORD,** C. E.

1924. A synopsis of the vertebrate animals of Tasmania. *See* LORD, C. E. and SCOTT, H. H.

SCOTT, ROBERT FALCON [1868–1912].

1905. The voyage of the 'Discovery'. *2 vols.* Vol. I, *pp. xix+556. 92 pl. (7 col.). 3 maps. 16 figs.* Vol. II, *pp. xii+508. 93 pl. (6 col.). 2 maps. 9 figs. 2 append. index.* *London.*

There are many references to animals throughout both volumes. A second impression appeared in 1905, together with a smaller edition with fewer plates. All the 'Discovery' reports are in the McGill libraries.

1913. Scott's Last expedition; being the journals of R. F. Scott and the reports of the journeys and the scientific work undertaken by E. A. Wilson and the surviving members of the expedition, arranged by Leonard Huxley. *2 vols. 8vo. illust.* *Toronto.*

A graphic account of the second and last expedition in which Captain Scott lost his life.

1929. The Voyage of the 'Discovery'. *8vo. pp. 14+720. map. 16 illust. index.* *New York.*

Another American, single volume edition describing the famous expedition.

SCOTT, WILLIAM BERRYMAN [1858–].

1885. *See* KINGSLEY, J. S.

1901–7. *See* NATAL.

1903–4. Mammalia of the Santa Cruz beds. *folio.* *Princeton, N.J.*

Author's separate from *Reports of Princeton University Expeditions to Patagonia*, vol. 5, pt. 1.

1904–12. *See* PRINCETON UNIVERSITY EXPEDITIONS TO PATAGONIA.

1907. A collection of fossil mammals from the coast of Zululand. *4to. pp. 15. illust.*

Author's repr. from the Third *Report of the Geological Survey of Natal and Zululand.*

[**SCOTT,** W. B. (*contd.*)]

1913. A history of land mammals in the western hemisphere. *8vo. pp. xiv+693. 304 figs.* *New York.*

1927. *See* STONE, WITMER.

SCOTT, WILLIAM EARLE DODGE [1852–1910].

1891–3. Observations on the birds of Jamaica, West Indies. *8 pts. in 1 vol. 8vo.*

Author's reprint; a well-annotated list of 212 species and subspecies. Presentation copy from the author, with autograph. (The *Auk*, vols. 8–10.)

1898. Bird studies; an account of the land birds of eastern North America. *8vo. pp. xii+363. front. 165 figs. index.* *New York.*

1903. The story of a bird lover. *8vo. pp. xi+372.* *New York.*

A reprint of this interesting biography was published in 1904.

******** and **SHARPE,** R. BOWDLER.

1904–12. Ornithology of Patagonia. Vol. II. Pts. I–III. Reports of Princeton Univ. Exped. to Patagonia, 1896–99. *4to.* Pt. I, *pp. 1–112. 66 figs.* Pt. II, *pp. 113–344. figs. 67–174.* Pt. III, *pp. 345–504. 1 pl. figs. 175–252.* *Princeton, N.J.*

SCOTTISH NATIONAL ANTARCTIC EXPEDITION.

1907. Life in the Antarctic. *See* BRUCE, W. S.

SCOTTISH NATURAL HISTORY SOCIETY. *Edinburgh.*

1898–1902. Transactions.

SCOTTISH NATURALIST. *Edinburgh.*

1912–*date.* Continues Annals of Scottish Natural History.

SCOTTISH NATURALIST AND JOURNAL OF THE PERTHSHIRE SOCIETY OF NATURAL SCIENCE. *Perth, Edinburgh, London.*

1871–91. Continued as Annals of Scottish Natural History.

SCOTTISH OCEANOGRAPHICAL LABORATORY.

1908–10. Scottish National Antarctic Expedition. Report on the scientific results. *4to.* *Edinburgh and Glasgow.*

Five volumes have so far been published, the zoology chiefly in vol. IV, *pp. 8+313, 36 col. pl.*, 1909. A 'Zoological Log' was kept by D. W. Wilton, J. H. H. Pirie, and R. N. Rudmose Brown.

SCOVILLE, S.

1927. Man and Beast. *8vo. pp. 255.* *London.*

SCRANTON, Pa. Everhart Museum of Natural History, Science, and Art.

1915. Natural History Bulletin.

1913–15. Natural History Leaflet.

SCUDDER, SAMUEL HUBBARD [1837–1911].

1882. Nomenclator zoologicus—an alphabetical list of all generic names . . . to the close of the year 1879. In two parts, Supplement and Index. *pp. 19+376 and 340.*

This extremely useful publication is *U.S. Nat. Mus. Bull.* 19 and forms a complete list of generic names in zoology and paleontology found in the corresponding works of Agassiz, Marschall, and the *Zoological Record.* The *Index zoologicus* of C. O. Waterhouse, London, 1902–12, is a further supplement to the above important work.

SEABRA, ANTHERO FREDERICO DE.

1905. A regeneração da fauna ornithologica da Mata Nacional do Bussaco. *4to. pp. v+160. append. index.* *Lisbõa.*

Separately published treatise on agricultural zoology, or an account of useful and injurious animals in Portugal, including mammals, birds, and insects.

SEABURY, J. S.

1921. Reflections of a Moose Hunter. *8vo.* *New York.*

The Compiler cannot believe that they could have been very pleasant after looking into the dimmed eyes of some of his harmless and noble victims.

SEAGER, HERBERT WEST.

1896. Natural history in Shakespeare's time; being extracts illustrative of the subject as he knew it. *8vo. pp. viii+358. 46 figs. glossary.* *London.*

SEALY, ALFRED FORBES.

1853. A classified list of the names and Latin synonyms of the British birds, including the names of all species observed up to the present time in the British Isles. *8vo. pp. 6+29 fol.* (Privately printed.) *Cambridge.*

The present volume is a presentation copy. It is interleaved and full of the author's MS. notes.

SEBA, ALBERT [1665–1736].

1734–65. Locupletissimi rerum naturalium thesauri accurata descriptio, et iconibus artificiosissimis expressio, per universam physices historiam. *4 vols. folio. 449 col. pl.* Latin and Dutch. *Amstelaedami.*

The author was a wealthy Dutchman who assembled the richest collection of natural history objects in his time. His private museum was afterwards purchased by Peter the Great and removed to St. Petersburg. Preface by Hermann Boerhaave; vignettes by Pieter Tanje. There is, in addition to the Latin-Dutch and Latin-French editions, a third (extremely rare) printing, edited by Guerin, Paris, 1827–30. The reissue was carried out under Cuvier's supervision, the fine plates of the original being reproduced. To this classic rarity many noted naturalists—H. Boerhaave, P. Artedi, H. D. Gaubius, and P. Massuet among them—contributed. Artedi wrote most of the descriptions of Fishes.

SEBASTOPOL. Laboratoire zoologique et station biologique. *See* LABORATOIRE ZOOLOGIQUE . . . SEBASTOPOL.

SEBRIGHT, JOHN SAUNDERS [1767–1846].

1826. Observations upon Hawking, etc. *8vo.* *London.*

SEDALIA NATURAL HISTORY SOCIETY. *Sedalia, Mo.*

1885. Bulletin.

SEDGWICK, ADAM [1854–1913].

1885. The works of F. M. Balfour. *See* BALFOUR, F. M.

1885. Elementary text-book of zoology. *See* CLAUS, C. F. W.

1898–1909. A student's text-book of zoology. *3 vols. 8vo.* Vol. I, *pp. xii+619. 472 figs. index.* Vol. II, *pp. xv+705. 333 figs. index.* Vol. III, *pp. xi+905. index.* *London.*

Probably the most complete work of its kind (to date) accessible to English readers, containing all the information that even an advanced student requires about the anatomy and classification of vertebrated animals.

SEDGWICK, Sidney Newman.

1922. The British nature book; embracing the mammals, birds, reptiles, fish, etc. *8vo. pp. xi+495. 40 pl. (8 col.). 505 figs. append. index.* *London.*

SEEBOHM, Henry [1832–95].

1880. Siberia in Europe: a visit to the valley of the Petchora, in north-east Russia; with descriptions of the natural history. *8vo. pp. xvi+311. 48 text-figs. 1 map. index.* *London.*

An account of the author's journey with J. A. Harvie-Brown in search of the breeding-grounds of the Grey Plover, Little Stint, Sanderling, Curlew Sandpiper, Knot, and Bewick's Swan.

1881. Catalogue of the Passeriformes, or perching birds, in the collection of the British museum. *8vo. pp. xvi+426. 18 pl. (col.). 15 figs. 2 indexes.* *London.*

Vol. V of the *Catalogue of the Birds in the British Museum.* It contains an account of all the Warblers and Thrushes known at the time, amounting to 344 species, of which 303 are in the Museum, being represented by 2,560 examples.

1882. Siberia in Asia, a visit to the valley of the Yenesay in east Siberia. *8vo. pp. xviii+304. 67 figs. map. index.* *London.*

A companion volume to the author's *Siberia in Europe*, 1880. The two volumes, combined, revised, and reissued form in 1901 *The Birds of Siberia.*

1882–5. A history of British birds, with coloured illustrations of their eggs. *4 vols. 4to. pp. 684+18. 68 col. pl. index.* *London.*

The work appeared in six parts, part 1 being published in 1882 (dated 1883); parts 5 and 6 not until 1885. A second edition appeared in 1896, and a third edition (or reissue with some added notes) was published in 1904. The above is a brief description of the ordinary copy, but there is in the E.S.W. Library also a specially bound copy, extra-illustrated with 267 plates from Lord Lilford's *British Birds*, thus adding greatly to the value of a work much lacking in many respects but especially in colored plates.

1887. The geographical distribution of the family *Charadriidae*, or the plovers, sandpipers, snipes, and their allies. *4to. pp. xxix+524. 21 pl. (col.). 265 figs. 1 map. 2 indexes.* *London.*

1890. The birds of the Japanese empire. *8vo. pp. xxiv+386. 98 figs. bibliogr. index.* *London.*

An unsuccessful attempt to collect all our available knowledge of Japanese ornithology into a single volume. A critical review of the work was given by Stejneger in the *Auk*, 1891, pp. 99–101. The copy in hand is an autographed presentation by the author.

1890. Classification of Birds: an attempt to classify the subclasses, orders, suborders and some of the families of existing birds. *8vo. pp. 11+53.* *London.*

This systematic work was followed by a *Supplement (pp. 8+28)* in 1895. The E.S.W. Library has another edition, dated 1918.

1893. Geographical Distribution of British Birds. Address to the Yorkshire Naturalists' Union. Skipton. *8vo. pp. 36.*

This paper appears to have been printed for private distribution. From the P. L. Sclater collection in the E.S.W. Library.

******** and **SHARPE,** R. Bowdler.

1896. Coloured figures of the eggs of British birds, with descriptive notices. *8vo. pp. xxiv+304. portr. 60 col. pl. 2 indexes.* *London.*

Edited after the author's death by R. Bowdler Sharpe.

1901. The birds of Siberia; a record of a naturalist's visits to the valleys of the Petchora and Yenesei. *8vo. pp. xix+512. 112 figs. map (col.). index.* *London.*

This work in a one-volume compilation from the accounts of the author's two visits to Siberia in 1875 and 1877.

1902. (A) monograph of the *Turdidae.* Or family of thrushes. Ed. and completed (after the author's death) by R. Bowdler Sharpe. *2 vols. 4to.* Issued in 13 parts. Vol. I, *pp. xi+336. portr. 78 pl. (col.).* Vol. II, *pp. ix+250. 71 pl. (col.). addend. index.* *London.*

SEELEY, Harry Govier [1839–1909].

1870. The ornithosauria; an elementary study of the bones of pterodactyles. *8vo. pp. 12+135. 12 pl.* *Cambridge.*

1886. The fresh-water fishes of Europe; a history of their genera, species, structure, habits, and distribution. *8vo. pp. 10+444. 1 pl. figs. in text.* *London.*

1896. Index to the fossil remains of aves, ornithosauria and reptilia from the secondary system of strata in the Woodwardian Museum of the University of Cambridge. *8vo. pp. xxiii+143. T. of c.* *Cambridge.*

1901. Dragons of the air, an account of extinct flying reptiles. *8vo. pp. 13+239. 11 pl. text-figs.* *London.*

SEERS, H. Waddingham.

1921. The book of nature stories. *8vo. pp. 5+256. 8 pl. (col.).* *New York.*

SEIDEL, Heinrich.

1909. Naturbilder. *8vo. pp. 7+174.* *Leipzig.*

SEIDLITZ, Georg Karl Maria von [1840–].

1869. Die Bildungsgesetze der Vogeleier in histologischer und genetischer Beziehung. *8vo. pp. 4+58. tabs.* *Leipzig.*

SEITEI, Watanabe (Seitei Kwacho Gwafu).

1890. Colored Sketches of Birds and Flowers. *3 vols.* *Tokio.*

SELBORNE MAGAZINE. *London.*

1890–*date.* (1890–1908 as Nature Notes.)

SELBORNE MAGAZINE FOR LOVERS AND STUDENTS OF LIVING NATURE. (**Selborne Society.**) *London.*

1888–9. Continues Letters of Selborne Society; continued as Selborne Magazine.

SELBORNE SOCIETY, LONDON.

1887. Letters. Continued as Selborne Magazine for Lovers and Students of Living Nature.

SELBY, Prideaux John [1788–1867].

1821–34. [Illustrations of British ornithology.] Plates to Selby's illustrations of British ornithology. *2 vols. el. folio. 222 col. pl.* Vol. I (pt. I), *8vo. pp. 36+335.* Land Birds, 1821. Vol. I, Land Birds [2nd ed.], *pp. 37+450. 93 pl.* 1833. Vol. II, Water Birds, *8vo. pp. 12+538. 129 col. pl.* 1833. Volumes, parts, and plates dated, numbered, and issued irregularly. *London, Edinburgh, and Dublin.*

A series of fine, life-sized, colored plates of British birds. There are numerous editions of the work. In the preface to vol. I of the text *Illustrations of British Ornithology*, 1833, the author apologizes for a 'slight want of regularity in the numbering of the plates'! The present copy differs from that of the *Ayer Catalogue* (p. 571) in that all of the plates in vol. II are colored, instead of only 125 there recorded, evidently an editorial error, the four plain ones being credited here instead of to vol. I. Vol. I has the paper watermarked '1832', while that of vol. II is '1827', there being a wide range in

[**SELBY,** P. J. (*contd.*)]

the watermarks of the various editions. Vol. I was issued in 8 parts and vol. II in 11 parts. According to Bernard Quaritch the elder, many of the plates of the Edinburgh issues were colored by Daniel McNee. Quaritch was at one time assistant to Henry Bohn who published the edition of 1841.

******** and **JARDINE,** W.

[1826–43]. Illustrations of ornithology. *See* JARDINE, W. and SELBY, P. J.

1835. The natural history of pigeons. *8vo. pp. 15 +228. 30 col. pl. T. of c.* *Edinburgh.*

A volume in the famous *Naturalist's Library*, edited by William Jardine. In this particular edition Pigeons (as a section of gallinaceous birds) are assigned a separate part, the text consisting of a brief but sufficient description of the various species with their synonymy, habits, distribution, etc. The work is finely illustrated with the usual hand-colored plates. A biography of Pliny by A. Crichton introduces the monograph.

1836. Natural history of parrots. *8vo. pp. 15+ 207. 30 col. pl. T. of c.* *Edinburgh.*

A very attractive and popular volume of the *Naturalist's Library* series. A condensed natural history of the Psittacidae with their synonymy is given in remarkable detail, preceded by a memoir of Thomas Bewick.

1840. A catalogue of the generic and sub-generic types of the class aves, birds, arranged according to the natural system; with separate lists distinguishing the various quarters of the globe in which they are to be procured. *8vo. pp. 4+70. Newcastle.*

This rare pamphlet (from the Reichenow collection in the E.S.W. Library) is of importance because it probably antedates Gray's List, and is one of the fundamentals, to be consulted by the advanced ornithologist in his study of the synonymies of species. The catalogue introduces several new names of well-known, accepted genera.

1841. [Illustrations of British ornithology.] Plates to Selby's illustrations of British ornithology. *2 vols. el. folio. 222 col. pl.* Published by Henry G. Bohn. Vol. I, *engr. tit.* (*col.*). *93 pl.* (*89 col.*). Vol. II, *engr. tit.* (*col.*). *129 pl.* (*col.*). *London.*

This edition is the reissue commonly known as Bohn's reprint. It differs from the (1821)–34 edition, in having the engraved titles colored, instead of plain; otherwise the number of plates in both volumes is the same.

SELENKA, EMIL [1842–1902].

1859–97. *See* BRONN, H. G., Die Klassen, etc.

1883–1903. Studien über Entwickelungsgeschichte der Thiere. *4to.* *Wiesbaden.*

Five volumes of this monumental work on faunal embryology and development were issued to 1892, and further continuation was provided after the death of the author in 1902. It is a work that in its complete form should be on the shelves of every advanced natural history library. Hefte I–X are the work of Selenka, subsequent parts form the posthumous portion.

SELOUS, EDMUND.

1901. Beautiful birds. *12mo. pp. 10+224+(1). 13 pl.* *London.*

Simple tales of beautiful birds that evidence the cruelty of killing them for the sake of their feathers, when those of the Ostrich raised on farms answer all useful purposes.

1901. Bird watching [in the British Isles]. *8vo. pp. 11+347. pl. and text-figs. index.* *London.*

A reliable, popular, and interesting book.

1905. Bird life glimpses. *8vo. pp. 8+355. 6 pl. text-figs.* *London.*

1905. The bird watcher in the Shetlands. *8vo. pp. 10+388. 10 pl. index.* *London.*

1911–13. The British bird book. *See* KIRKMAN, F. B. B.

1927. Realities of bird life. *8vo. pp. 16+350. index.* *London.*

1931. Thought Transference (or What?) in Birds. *8vo. pp.11 +225.* *London.*

SELOUS, FREDERICK COURTENEY [1851–].

1893. Travel and adventure in South-East Africa. *8vo. pp. 18+503. 23 pl. 35 figs. index.* *London.*

1901–2. *See* CORNISH, C. J., *ed.*

SELYS-LONGCHAMPS, MICHEL EDMOND DE [1813–1900].

1842. Fauna Belge, 1re Partie, etc. *8vo. pp. 12+ 310. 9 col. pl.* *Liége* and *Bruxelles.*

This treatise does not appear to have been completed. It undertook an 'indication méthodique' of all the Belgian vertebrates from the earliest times to the present.

1846. Sur les oiseaux américains admis dans la faune européenne. *8vo. pp. 18.* *Liège.*

Author's reprint from *Mémoirs de la Société royale des sciences de Liége*, vol. 5.

1879. Sur la classification des oiseaux depuis Linné. *8vo. pp. 85.* *Bruxelles.*

1906–10. Collections zoologiques; catalogue systématique et descriptif, publié par les soins de ses fils, [etc.]. Fasc. 1–31. *1 vol. folio. pl.* *Bruxelles.*

SEMI-ANNUAL, THE. A semi-annual review for students of Ornithology and Oology. Edited by Lynds Jones, Oberlin, Ohio.

1889–91. (All pub.) Continuation of *The Ornithologists' and Oologists' Semi-Annual.*

This magazine was the organ of the Wilson Ornithological Chapter of the Agassiz Association. It was continued as *The Wilson Quarterly.*

SEMON, RICHARD WOLFGANG [1859–1918].

1893–1913. Zoologische Forschungsreisen in Australien und dem Malayischen Archipel, etc. Vols. I–V. *4to.* *Jena.*

The reports of the author's expeditions into the coastal wilds of Australia and Malaysia were published as serials extending over ten years. They form important contributions to the vertebrate zoology of the explored regions.

1899. In the Australian bush and on the coast of the Coral Sea; being the experiences and observations of a naturalist in Australia, New Guinea and the Moluccas. *8vo. pp. 15+552. 86 figs. 4 maps. append. index.* *London and New York.*

The English translation of the author's *Im Australischen Busch*, etc., published in 1896 (second edition, 1903), Leipzig.

1920. Die Mneme als erhaltendes Prinzip im Wechsel des organischen Geschehens. 5th ed. *8vo. pp. 20+420. illust.* *Leipzig.*

1922. Die mnemischen Empfindungen in ihren Beziehungen zu den Originalempfindungen; erste Fortsetzung der 'Mneme'. 2nd ed. *8vo. pp. 16+ 392. illust.* *Leipzig.*

SEMPER, CARL GOTTFRIED [1832–93].

1876. Der Haeckelismus in der Zoologie. *8vo. pp. 36.* *Hamburg.*

1881. The natural conditions of existence as they affect animal life. *8vo. pp. xvi+472. 106 figs. 2 maps. index.* *London.*

Vol. XXXI of the *International Scientific Series.*

SENCKENBERGISCHE NATURFORSCHENDE GESELLSCHAFT.
Frankfurt-a-M.

1854–*date.* Abhandlungen.

1829–69. Bericht.

1869–*date.* Bericht.

1834–45. Museum Senckenbergianum.

1918–*date.* Senckenbergiana.

SENECA, LUCIUS ANNAEUS [4 B.C.–A.D. 65].
1522. Naturalium Quaestionum Libri VII.
In this dissertation the Roman philosopher discusses many natural history problems. The copy in hand is an Aldine edition, once in the library of the Doge Marco Foscarini and stamped with his arms.

1614. The Workes of Lucius Annaeus Seneca, both Morall and Naturall. Tr. by Tho. Lodge. *folio.* [O.]. *London.*
A second edition, also containing his observations on animal life, appeared in 1620.

SENNERT, DANIEL [1572–1637].
1618. Epitome naturalis scientiae, etc. ?*Venice.*
There were several editions of this naturalist's writings, none of them listed in the *Cat. Br. Mus.* (*Nat. Hist.*). The above seems to be the (short) title of the *editio princeps.*

1651. Epitome naturalis scientiae. *folio. pp. 88. Venetiis.*
Part of the author's larger work. From Dean Adams' Library.

SENNETT, GEORGE B. and **COUES,** ELLIOTT.
1878. Notes on the ornithology of the Lower Rio Grande of Texas, from observations made during the season of 1877. *8vo. pp. 66. Washington.*
The result of the trip was the securing of over 500 birds, three of which were new to our fauna and one new to science; about a thousand eggs, many of which were also new or rare, and a few interesting mammals. The copy in hand is the authors' edition, presentation copy autographed.

1879. Further notes on the ornithology of the Lower Rio Grande of Texas, from observations made during the spring of 1878. *8vo. pp. 371–440. Washington.*
Authors' autographed edition. The results of this second expedition were 500 birds, including a large majority of the 168 species observed (five new to science); 1,400 eggs, nearly all rare, and some entirely new, together with a few mammals and reptiles.

SEPARATES.
In the McGill libraries there are many thousands of separates (extracts, excerpts) or reprints of articles in periodicals, serials, encyclopedias and other works relating to zoology. The majority of these are bound, indexed, and their titles filed in carded repositories, and are thus available as distinct heads to students. In some instances, when the original source is not available or difficult of access, the headings have been printed and in some instances annotated in this *Catalogue.* As a rule, however, these captions have been confined to authors' separately issued copies. Most of the pamphlets have belonged to collections made by such men as P. L. Sclater, Reichenow, Cabanis, J. A. Allen, A. H. Clark, *et al.*
Many tractates have manuscript and marginal notations; still more are interesting, autographed presentations from one zoologist to another.

SEPP, CHRISTIAAN. **1770–1829.** *See* NOZEMAN, CORNELIUS.

SERAO, FRANCESCO [1702–83].
1766. Opuscoli di fisico argomento; I. Descrizione dell'Elefante. II. Saggio di considerazioni anatomiche fatte su d'un Leone. III. Osservazioni sopra un fenomeno occorso nell'aprire un Cinghiale. *4to. pp. 12+99. illust. Napoli.*
The first part is a rare early monograph on the Elephant; the two others deal with the lion and the wild hog. A contribution to comparative zoology.

SERRES, PIERRE MICHEL TOUSSAINT DE [1780–1862].
1842. Des causes des Migrations des Animaux . . . des Oiseaux et des Poissons. *4to. pp. 4+322. Haarlem.*
A standard work on animal migration.

SETH-SMITH, DAVID [1875–].
1902–3. Parrakeets: a handbook to the imported species. *8vo. pp. 18+281. 20 pl. (col.). 24 figs. append. 2 indexes. London.*
Issued in six parts—a treatise on 131 species of captive birds with descriptions of their habits in life and in captivity. A second revised edition was issued in 1926.

1926. Parrakeets; a handbook to the imported species. Revised ed. *4to. pp. 18+295. London.*
On 162 species of captive birds, with a discussion of their systematic relations. The trade names are also given, a useful feature ignored by most handbooks. The illustrations are very good, and are the same as those employed in the first edition. The copy in hand has inlaid an A.L.S. to Dr. Casey Wood.

SETON, ERNEST THOMPSON [1860–].
1891. The birds of Manitoba. *8vo. pp. 87. map. bibliogr. index. Washington.*
A well-annotated list of 266 species. Author's reprint from the *U.S. Nat. Mus. Proc.*, vol. xiii.

******** and **HOFFMANN,** RALPH.
1901. [Twenty] Bird portraits. *4to. pp. 40. 20 pl. T. of c. Boston.*

1909. Fauna of Manitoba. *16mo. pp. 47. Winnipeg.*
Special reprint from *British Association Handbook*, Winnipeg, 1909. The mammals occupy pp. 3–11 (59 species); an annotated list of birds (268 species), pp. 11–47.

1909. Life-histories of Northern Animals. An account of the mammals of Manitoba. Vol. 1, Grass-eaters, *pp. xxx+673. 46 pl. 182 figs.* Vol. 2, Flesh-eaters, *pp. xii+677–1267. pl. 47–100. figs. 183–266. 68 maps. New York.*

1911. The Arctic Prairies. *8vo. Toronto.*

1929. Lives of game animals; an account of land animals . . . north of the Mexican border. *4 vols. 4to. illust. pl. Garden City.*
A well-illustrated, rather popular work, the copy in hand issued as an *édition de luxe.*

n.d. The Book of Woodcraft.
An interesting book on outdoor life, by this popular writer.

SETON, GEORGE [1822–1908].
1878. St. Kilda, past and present. *4to. pp. xv+346. 12 pl. (2 maps). 1 fig. T. of c. addend. Edinburgh.*

SETTERWALL, CARL GUSTAF [1872–].
1901. Studier öfver syrinx hos polymyoda Passeres. *4to. pp. 128. 7 pl. Lund.*

SEVERINI, JANOS [1716–89].

1779. Tentamen zoologiae Hungaricae; seu Historiae animalium quorum magnam partem alit Hungaria. *8vo. pp. 111.* *Posonii.*

SEVERINUS, MARCUS AURELIUS [1580–1656].

1644–61. Antiperipatias hoc est adversus Aristoteleos de respiratione piscium, etc. *2 pts. folio. pp. 10+128+70.* *Naples and Amsterdam.*

This curious mixture of essays on fishes, seals, turtles, etc. seems to have been printed at different dates, bound when the printing was complete, and the resulting volume given imprint and date (generally 1661, Amstelodami) at different times and places. However, it is an interesting and valuable contribution to zoological literature.

1645. Zootomia democritaea id est Anatome generalis totius animantium opificii. *4to. front. 11 ll. including 2 portr. pp. 408. 17 ll. many woodcuts in the text.* *Noribergae.*

This is the first printed book to deal exclusively with Zootomy. It is exceedingly rare.

1650. Vipera Pythia. Id est, De Viperae Natura, etc. [O.] *Patavii, Ill.*

SEVERTZOW, SEWERTZOW, SEWERZOW. *See* SYEVERTZOV.

SEWARD, ALBERT CHARLES [1863–].

1909. Darwin and modern science; essays in commemoration of the centenary of the birth of Charles Darwin and of the fiftieth anniversary of the publication of the 'Origin of Species'. *8vo. pp. 17+595. 3 pl. (1 col.). portr. text-figs.* *Cambridge.*

SHACKLETON, ERNEST HENRY [1874–1922].

1909. The heart of the Antarctic; being the story of the British Antarctic expedition 1907–1909. *2 vols. 8vo.* Vol. I, *pp. xlviii+372. 112 pl. (6 col., 2 fold.). 11 figs.* Vol. II, *pp. xv+419. front. 104 pl. (6 col., 2 fold.). 3 maps (col. fold.). 10 append. index.* *London.*

Appendix I, vol. II, contains Notes on the Biology by J. Murray. Here the life of the penguins is described, accompanied by 35 illustrations. There is, also, in the Blacker Library, a large paper, special edition autographed by the editor.

1909. The heart of the Antarctic; being the story of the British Antarctic expedition 1907–1909. *2 vols. 8vo.* *Philadelphia.*

The American edition, differing in no essential from the original edition published in London in 1909.

1911. In the Antarctic. *8vo. illust.* *London.*

Interesting descriptions of the birds and other South Polar animals.

SHÂHMARDÂN B. ABÎ'L-KHAYR.

1404. (A.H. 807.) Nuzhat-nāma-i-'Ala'ī.

The above title represents one of the three remaining copies of a celebrated encyclopedia of the flora, fauna, and other natural history objects known to the medieval Persians. It was dedicated by the author to a prince of the Banū Kakuya dynasty, 'Alā'u'd-dawla Abū Kālinjār Garshāsp b. 'Alī b. Farāmurz, who ruled A.D. 1095–1119. The oldest (A.D. 1304) and most complete copy of the treatise is in the Bodleian Library (H. Ethé's Cat., No. 1480); the second one, described in W. Pertsch's Catalogue, No. 10, dates from the beginning of the fifteenth century, the present copy is in the Blacker Library of Zoology. It is not quite complete but all the zoological parts are intact and, very important, it is illustrated by well-drawn colored figures. Considering that it is well over 500 years old this priceless manuscript is in a good state of preservation. The Asiatic Soc. (Ivanow's Cat., 1924, No. 1358) of Bengal and the Vienna copy (Flügel's Cat., No. 1449) contain only short extracts from the Nuzhat-nāma. *See also* FARAH-NĀMA.

SHAKESPEARE, NATURAL HISTORY OF.

1877. *See* MAYOU, BESSIE.

SHARAF.

1928. English-Arabic Dict. of Medicine, Biology and Allied Sciences. *Cairo.*

SHARP, DAVID [1840–].

1888. The walks abroad of two young naturalists. *See* BEAUGRAND, C.

SHARP, GRANVILLE.

1903. Birds in the garden; studies with a camera. *pp. 11+109. 107 figs.* *London.*

SHARPE, RICHARD BOWDLER [1847–1909].

1844–1875. The zoology of the voyage of H.M.S. Erebus and Terror, etc. *See* RICHARDSON, JOHN.

1868–71. A monograph of the *Alcedinidæ*: or, family of kingfishers. *4to. pp. 71+80+304+11. 122 pl. (121 col.). 2 figs. index.* *London.*

The work appeared in 15 parts, the dates of which are given by Coues. The plates are unnumbered, and the chapter on the anatomy stops abruptly at p. 80; otherwise a useful and beautifully illustrated treatise.

1871. Catalogue of African birds [703 species] in the collection of R. B. Sharpe. *8vo. pp. iv+76. index.* *London.*

1871–90. A history of the birds of Europe. *See* DRESSER, H. E.

****** and others.**

1874–98. Catalogue of the birds in the British museum. *27 vols. 8vo. 387 col. pl.* Zoology. [Aves.] *London.*

Every authority agrees that this is the most useful, as it is the most important, of all the works in any language on systematic ornithology. It furnishes a complete list of every bird not only in the immense collections of the British Museum but of numerous public and private museums elsewhere. Distribution, synonymy, essential illustrations, both colored prints and cuts in the text, are given, all combining to make this magnificent enterprise of the greatest value to every class of ornithological students. Bowdler Sharpe himself wrote 14 volumes and was appointed to edit all of the others. The titles of the latter are listed under the respective authors' names in this *Catalogue.*

1875. The birds of the globe. *8vo. pp. 23.* *Manchester.*

A public lecture, as it appeared in an author's reprint.

1875–88. The birds of New Guinea and the adjacent Papuan Islands. *See* GOULD, J.

[1878]. On the geographical distribution of the Accipitres. Pt. 1. The vulturidae. *8vo. pp. 26. 9 col. maps.* *London.*

Author's excerpt from the *Journal of the Linnean Society, Zoology,* vol. 13.

1878–91. *See* SCIENTIFIC RESULTS SECOND YARKAND MISSION.

1879. *See* ROYAL SOCIETY OF LONDON.

1879–1915. *See* GODMAN and SALVIN, Biologia Centrali-Americana.

1880. A contribution to the avifauna of the Sulu Islands. *See* BURBIDGE, F. W.

1880–[1]. Monograph of the Pittidae. *See* GOULD, J.

1880–7. A monograph of the trochilidae, or family of humming-birds. *See* GOULD, J.

1882–3. The birds of Asia. *See* GOULD, JOHN.

1881. *See* GUENTHER, A. C. L. G.

1881–2. Report on the zoological collections made in the Indo-Pacific ocean, etc. *See* BRITISH MUSEUM.

**** and **OATES,** FRANK.

1881. Matabele land and the Victoria Falls from the letters and journals of the late Frank Oates. Appendix II. Ornithology. *pp. 36. 2 pl. (col.). map.* *London.*

A second edition appeared in 1889.

1883. The young collector's handbook of British birds. *18mo. pp. 32. 6 figs.* *London.*

1883. *See* ANONYMOUS. [List of British Birds.]

1883–5. *See* SCIENCE LECTURES.

**** and **DUNCAN,** P. MARTIN.

1883–9. Cassell's Natural History. Edited by P. Martin Duncan. *6 vols. 4to.* Vols. III and IV, Aves, by R. Bowdler Sharpe. *London.*

The volumes of the *History* are sometimes published or sold separately. There is another edition with slightly altered introduction and without date.

**** and **WYATT,** CLAUDE WILMOTT.

1885–94. A monograph of the *Hirundinidæ* or family of swallows. *2 vols. 4to.* Vol. I, *pp. lxx+354. 53 pl. (9 col.). 11 maps. 1 fig. bibliogr.* Vol. II, *pp. viii+357–673. 50 pl. (6 col.). 15 maps. 1 fig. append. index.* *London.*

A monograph (issued in 20 parts) of all the known species of swallows, with 103 fine plates by the junior author, only 15 of which are colored, however, although in the edition published by Henry Sotheran & Co. apparently all are colored.

1888. Birds in nature. *4to. pp. vi+78. 39 col. pl. 78 figs.* *London.*

1888. List of [my] works and essays on ornithology. *8vo. pp. 15.* *London.*

[**1888**]. *See* FERNANDO DE NORONHA.

1889. Matabele land and the Victoria Falls. *See* OATES, FRANK.

1889–90. The Ornithology of Northern Borneo—Collection of 7 Papers, in 1 vol. *9 col. pl.*

Separately bound, constituting almost a complete account (from *Ibis*) of the Aves.

1890. (The) ornithological work of J. S. Jameson. *See* JAMESON, J. S.

1891. Scientific results of the second Yarkand mission. *See* STOLICZKA, FERDINAND.

1891. A Review of recent attempts to classify birds. *8vo. pp. 90. 3 pl. illust. text.* *Budapest.*

An address before the *Second Intern. Cong. of Ornithology.*

1891. Catalogue of the specimens illustrating the osteology of vertebrated animals, recent and extinct, contained in the museum of the Royal College of Surgeons of England. Part III. Class Aves. *4to. pp. lvii+469. 49 figs. append. 2 indexes.* *London.*

The volume in hand is the author's own copy with his signature and a letter attached from R. W. Shufeldt praising the work. From the Mullens Library.

1891–8. Monograph of the *Paradiseidæ*, or birds of paradise and *Ptilonorhynchidæ*, or bower-birds. *2 vols. folio.* Vol. I, *39 col. pl. append.* Vol. II, *pp. 6+104. 40 col. pl. 6 figs.* *London.*

A splendid monograph issued in eight parts, with hand-colored plates by J. Gould and W. Hart.

1893. An analytical index to the works of the late John Gould. *4to. pp. 48+375. portr.* *London.*

1894–7. A hand-book to the birds of Great Britain. *4 vols. 8vo. illust.* (Allen's Naturalist's Library.) *London.*

1896. Coloured figures of the eggs of British birds. *See* SEEBOHM, HENRY.

1896–7. A hand-book to the birds of Great Britain. *4 vols. 8vo. illust.* (Lloyd's Natural History. Edited by R. B. Sharpe.) *London.*

The general text seems to be the same as that in Allen's Naturalist's Library, 1894–7, but the pagination and introductory matter in vols. 1 and 2 is somewhat different.

1897. *See* LYDEKKER, R.

1898. Royal Natural History. Vols. 3 and 4 devoted to Birds. *illust.* *London.*

One of the best popular works on the subject.

**** and **LYDON,** C.

1898. Sketch-book of [445 species of] British birds. *8vo. pp. 20+255. front. (col.). 305 figs. (col.). 1 diagr. index.* *London.*

[**1898**]. Wonders of the bird world. *8vo. pp. 16+399. illust. index.* *London and New York.*

1899–1909. Hand-List of the Genera and Species of Birds in the British Museum. *5 vols.* General Index, by W. R. Ogilvie-Grant, 1912, together 6 vols. *8vo.* *London.*

A famous textbook, essential to all zoological libraries.

1900. Aves. *See* ANDREWS, C. W.

1900. The natural history and antiquities of Selborne. *See* WHITE, GILBERT.

1901–12. Catalogue of the Collection of Birds' Eggs in the British Museum. *5 vols. 8vo. 79 col. pl.* *London.*

1902. *See* BR. MUSEUM (NAT. HIST.), 'SOUTHERN CROSS'.

1902. A monograph of the Turdidae. *See* SEEBOHM, HENRY.

1904. The Concise Knowledge of Natural History. *See* LYDEKKER, R. and others.

1904–12. Reports of the Princeton University expeditions to Patagonia. *See* SCOTT, W. B.

1907–10. *See* GODMAN, F. D.

n.d. On the birds collected by Prof. J. B. Steere in the Philippine Archipelago. Author's excerpt from *Trans. Linnean Soc.*, Series 2, Zoology. Vol. I. *folio. pp. 49. pl.* *London.*

SHAVER, NELLIE E.

1918. A nest study of the Maryland yellow-throat. *8vo. pp. 12. 4 pl. (8 figs.).* *Iowa City, Iowa.*

Author's excerpt from the *University of Iowa Studies in Natural History.*

SHAW, GEORGE [1751–1813] and **NODDER,** F. P.

[**1789–1813**]. The naturalists' miscellany: or Coloured figures of natural objects; drawn and described immediately from nature. *24 vols. 8vo.* Vols. I–XXIV, *1,064 pl. (col., 282 of birds). 2 indexes.* *London.*

This remarkable serial was originally issued in 267 numbers, the text in Latin and English, the pages unnumbered. In the present

[**SHAW,** G. (*contd.*)]

copy 282 of the colored plates relate to birds. These are accompanied by a description of the generic and specific characters of each species, followed by a short, general description of range, etc. Vols. 1–12 are by Shaw and F. P. Nodder; 13–24 by Shaw and E. and R. P. Nodder. The work was continued by W. E. Leach and R. P. Nodder as the *Zoological Miscellany*, 1814–17.

1790. Vivarium Naturae or the Naturalist's Miscellany. Figs. by Nodder. *12 vols. in 6. 8vo. 492 hand-col. pl. (137 of birds).* *London.*

This is a separately issued edition of a section of *The Naturalists' Miscellany*, 1789–1913.

[?**1791**]. Original drawings made expressly to illustrate George Shaw's Museum Leverianum by C. R. Ryley and others. *100 folio sheets in portfolio.*

This unique collection has been described under ORIGINAL DRAWINGS, and elsewhere referred to in this *Introduction*.

1792–6. Museum Leverianum, containing select specimens from the museum of the late Sir Ashton Lever; with descriptions in Latin and English. Pts. I–VI. *4to. 72 col. pl. letterpress.* *London.*

The copy in hand of this well-known catalogue has an extra title-page, 'Musei Leveriani Explicatio'. Part VI has its separate title-page and pagination.

1794. Zoology of New Holland; the figures by James Sowerby. *folio. col. pl.* *London.*

Colored plates of mammals and birds interspersed, together with one plate each of fish, tortoise, snake, and lobster. This must be an extremely rare work, in which were probably utilized some of the figures from the author's *Speculum Linnæanum* for which James Sowerby made the illustrations.

1796. Cimelia physica. Figures of rare and curious quadrupeds, birds, &c. together with several of the most elegant plants. Engraved and coloured from the subjects themselves by John Frederick Miller. *folio. pp. 2+106. 70 col. pl.* *See also* MILLER, J. F. *London.*

1800–26. General zoology, or Systematic natural history. *14 vols. in 28. 8vo.* Vols. I–XI only paged continuously. *London.*
CONTENTS. Vols. I–II. Mammalia, 1880–1. III. Amphibia, 1802. IV–V. Pisces, 1803–4. VI. Insecta, 1806. VII–VIII. Aves, 1809–12. IX–XIV, pt. 1. Aves, by J. F. Stephens, 1815–26. [XIV, pt. 2]. General index to the zoology, by G. Shaw and J. F. Stephens, 1826.

After the death of Dr. Shaw the text for the Aves, vols. IX–XIV, was written by J. F. Stephens. The 505 plates for this portion of the work were engraved principally by Mrs. Griffiths.

1809. [Twelve] Zoological lectures delivered at the Royal institution in the years 1806 and 1807. *2 vols. 8vo.* Vol. I, *pp. xiv+248. 87 pl.* Vol. II, *pp. iv+225. 80 pl.* *London.*

SHAW, G. F.
1819. A history of the earth and animated nature. *See* GOLDSMITH, OLIVER.

SHAW, L. H. DE VISME.
1903. Snipe and woodcock; with chapters on snipe and woodcock in Ireland, by Richard J. Ussher, cookery, by Alexander Innes Shand. *8vo. pp. viii+298. 8 pl. 2 figs.* *London.*

Another of the *Fur and Feather Series* edited by Alfred E. T. Watson, the present and succeeding title heading a combined natural history and sportsman's cookery book!

1905. Wild-fowl; chapters on shooting the duck and the goose, by W. H. Pope. Cookery by A. I. Shand. *8vo. pp. 8+278. 8 pl.* *London.*

SHAW, THOMAS [1694–1751].
1738. Travels, or Observations relating to several parts of Barbary and the Levant. *4 pts. folio. pp. 15+442+60. illust.* *Oxford.*

The pagination is continuous but the several parts have separate tables of contents. Includes observations on birds in the countries visited and notes on the sacred animals of Egypt.

SHAW, V.
n.d. The Illustrated Book of the Dog. *28 col. pl.* *London.*

SHAW, WILLIAM THOMAS [1873–].
1908. The China or Denny pheasant in Oregon, with notes on the native grouse of the Pacific Northwest. *8vo. pp. 24. 15 pl.* *Philadelphia.*

1927. Mammals and birds of Mount Rainier National Park. *See* TAYLOR, WALTER PENN.

SHELFORD, ROBERT WALTER CAMPBELL [1872–1912].
[**1916**]. A naturalist in Borneo, with a biographical introduction by Edward B. Poulton. *8vo. pp. xxvii+331. 32 pl. index.* *London.*

Notes and memories of seven years (1897–1904) in Borneo written during a long illness which culminated in the author's death. Chapter II, pp. 49–73, contains Bird-notes, with three plates of illustrations.

SHELLEY, GEORGE ERNEST [1840–1910].
1872. A handbook to the birds of Egypt. *8vo. pp. viii+342. 14 pl. (col.). index.* *London.*

The information in this excellent work is derived chiefly from a collection of nearly a thousand skins of birds.

1876–80. (A) monograph of the *Nectariniidæ*, or family of sunbirds. *4to. pp. 108+393. 121 col. pl. index.* *London.*

An important monograph which appeared in 12 parts. A total of 138 species of the group are recognized, all of which, except one, are figured on fine hand-colored plates by J. G. Keulemans, who was himself acquainted with these small birds in their native haunts, and whose notes on the Sun-birds inhabiting Prince's Island have been incorporated in the work. The original title of the work was *A monograph of the Cinnyridæ*, etc., but it was later changed. Two new genera and ten new species are described, and tables of geographical distribution of the whole group are provided.

1886. *See* JOHNSTON, H. H.

1888. *See* JAMES, F. L.

1891. *See* SCLATER, P. L.

******** and **SCLATER,** WILLIAM LUTLEY.
1896–1912. The birds of Africa, comprising all the species which occur in the Ethiopian region. *5 vols. 8vo. pp. 502. num. col. pl. indexes.* *London.*

A comprehensive review of the birds of Africa and surrounding islands, excepting 'those countries bordering on the Mediterranean and eastward of the Red Sea'. Many new genera are described, and the plates by Grönvold are excellent. The work was published in eight parts; completed after the author's death by W. L. Sclater.

SHÊN T'UNG 沈彤 [18th cent.].

1884. Shih ku 釋骨; A description of the human & animal skeleton. *pp. 8.* (*In Yü han shan fang chi i shu* 玉函山房輯佚書. *20×12·6 cm.* [G.]

SHEPHERD, CHARLES WILLIAM.
1907. Notes on the birds of Kent. *See* BALSTON, R. J.

SHEPHERD, J. A.
1926. A Frolic around the Zoo. Being the adventures of Blinx and Bunda. *London.*
The author is rightly famous for his humorous animal studies, and in this volume he has given his sense of humour full rein. These drawings show the emotions, passions, and manners of the birds and beasts encountered in the ramble through the Zoo.

SHEPPARD, REVETT.
1824. A catalogue of the Norfolk and Suffolk birds. *4to. pp. 61.* *London.*

SHEPSTONE, H. J.
1931. Wild beast to-day. *8vo. pp. 254. 106 figs.* *London.*

SHERBORN, CHARLES DAVIES [1861–].
1890. *See* WOODWARD, ARTHUR S.

1899. An Index to the generic and trivial names of Animals, described by Linnaeus, in the 10th and 12th editions of his 'Systema Naturae'. *8vo. pp. 8+108.* Museum Handbook, Owens College, Manchester. *London.*
A small but very useful work for the systematist, indispensable for the advanced student.

1899. *See* LINNAEUS, CARL.

1902. Index animalium: sive, Index nominum quae ab A.D. MDCCLVIII generalibus et speciebus animalium imposita sunt, societatibus eruditorum adiuvantibus. *8vo. pp. 1,195.* Pars prima. Covers the period 1758–1800.

1903–30. Index animalium. Pts. 1–14. *8vo.* Pars secunda, 1801–50. A- laminella. *London.*
Aims to list all generic and specific names applied by authors to animals since the publication of the tenth edition of Linnaeus' *Systema Naturae* in 1758, with exact reference to the work in which the name is used. A monumental contribution to animal classification, the result of many years of painstaking effort on the part of the erudite compiler. It is a necessary work of reference in every well-equipped library.

SHIELD, GEORGE.
ca. **1840.** Ornithologia Britannica. *folio. 6 col. pl.* No text. Engraved by T. Aikman. (Wanting.)
Excessively rare plates, whose history the Compiler could not trace.

SHIGEMASA.
1805. Flowers and Birds in Colors. (Signed Kitao Kosuisai.) Arranged in European Sequence. Vols. 1–3 (in 1). *Yedo.*

SHIPLEY, ARTHUR EVERETT [1861–1928].
1895–1909. The Cambridge Natural History. *8vo.*
This admirable series, whose valuable volumes on vertebrate zoology are listed in this Catalogue, was edited by A. E. Shipley and others.

****** and MacBRIDE,** E. W.
1901. Zoology; an elementary text-book. *8vo. pp. 21+632. 349 figs. index.* *New York.*
This first edition (same date as above) was published at Cambridge, England, with a second in 1904, a third in 1915, and a fourth in 1920, all of them in the McGill libraries.

1917. Studies in insect life and other essays. *8vo. pp. ix+338. 12 pl. 9 figs. index.* *London.*

1922–4. The fauna of British India. *See* BAKER, E. C. S.

SHIRAS, GEORGE [1859–].
[**1918**]. How birds can take their own portraits. *See* NATIONAL GEOGRAPHIC MAGAZINE.

SHIRLING, A. E.
1920. Birds of Swope Park, etc. *12mo.* *Kansas City, Mo.*

SHOEMAKER, HENRY W.
1919. The passenger pigeon in Pennsylvania. *See* FRENCH, J. C.

SHOOSMITH, F. H.
n.d. Nature study and the blackboard. (The Kingsway series.) *2 vols. 8vo. illust.* *London.*

SHORE, F. J.
1827–9. Manuscript Appendix to Latham's *Birds*, 1821–8, with 195 original water-colors of Indian birds. *3 vols. 4to. See also* ORIGINAL DRAWINGS, Shore, F. J.

SHORE, THOMAS WILLIAM [1840–1905]. **1908–11.** *See* HAMPSHIRE FIELD CLUB.

SHRINER, CHARLES ANTHONY [1853–].
1897. The birds of New Jersey. *8vo. pp. 212. 31 pl. 7 figs.* *Paterson, N.J.*

SHROPSHIRE ARCHAEOLOGICAL AND NATURAL HISTORY SOCIETY.
Shrewsbury.
1878–88. Transactions. Series 1.
1889–1900. Transactions. Series 2.
1901–10. Transactions. Series 3.
1911–*date.* Transactions. Series 4.

SHUCKARD, WILLIAM EDWARD [1802–68].
[**1860**?]. Chamber and cage birds. *See* BECHSTEIN, J. M. and BARNESBY, G. J.
1879. Another edition.

SHUFELDT, ROBERT WILSON [1850–].
1881. Osteology of Lanius ludovicianus excubitorides. *8vo. pp. 351–9. 1 pl.* Author's ed. *Washington.*

1881. Osteology of Speotyto cunicularia var. hypogaea and of Eremophila alpestris. *8vo. pp. 87–147. 4 pl.* Author's ed. *Washington.*

1882. Contributions to the anatomy of birds. *8vo. pp. 593–806. 25 pl. 51 figs.* *Washington.*

1887. Contributions to science and bibliographical résumé of the writings [123 titles] of R. W. Shufeldt, 1881–87. [By their author.] *8vo. pp. 20.* *New York.*

1887. A review of the muscles used in the classification of birds. *8vo. pp. 24. 13 figs.*
Author's reprint.

1890. The myology of the raven (*Corvus corax sinuatus*). A guide to the study of the muscular system in birds. *8vo. pp. 19+343. 76 figs. bibliogr. index.* *London.*
One of the few monographs on the muscular system of birds. The Raven was chosen because it is representative of a numerous and cosmopolitan family of birds, the Corvidae.

1893–6. A dictionary of birds. *See* NEWTON, A.

1900. Chapters on the natural history of the United States. *8vo. pp. 472. 130 figs. index.* *New York.*
The first edition was published in 1897.

[**SHUFELDT,** R. W. (*contd.*)]

1909. Osteology of birds. *8vo. pp. 381. illust.* (N.Y. State Museum, Bulletin 130.) *Albany.*

A very important work on the subject.

1914. Contribution to the study of the 'Tree-ducks' of the genus Dendrocygna. *8vo. pp. 70. 16 pl. (2 col.).* *Jena.*

Author's reprint.

1915. Fossil birds in the Marsh collection of Yale University. *4to. pp. 109. 15 pl.* *New Haven.*

SHUMWAY, WALDO [1891–].

1927. Vertebrate embryology; a text book for colleges and universities. *8vo. pp. viii+314. 195 figs. index.* *New York.*

1928. The frog; a laboratory guide. *8vo. pp. 8+87. illust.* *New York.*

SIAM. *See* NATURAL HISTORY SOCIETY OF.

SIAM SOCIETY, BANGKOK.

1904–*date.* Journal.

1926–*date.* Journal—Natural History Supplement.

SIBBALD, ROBERT [1641–1722].

1684. Scotia illustrata sive Prodromus historiæ naturalis in quo, etc. *3 vols. (pts.). folio. illust.* *Edinburgh.*

The plates illustrating animal life—'tam feris quam domesticis'—include an original illustration of the Loon, *Colymbus maximus stellatus*, the Greatest Diver, from the island of Ketham.

SIBOGA-EXPEDITIE.

1901–30. Uitkomsten op zoologisch botanisch, oceanographisch en geologisch gebied verzameld in Nederlandsch Oost-Indië, 1899–1900, uit gegeven door Max Weber. Livraison 1–106. *folio.* *See also* WEBER, M. C. W. *Leiden.*

SIBREE, JAMES [1836–].

1891–2. On the birds of Madagascar and their connection with native folk-lore, proverbs, and superstitions. *8vo. pp. 108.* *London.*

Author's reprint from *Ibis*. The present volume is a presentation from the author to the Rev. Canon Tristram.

1915. A naturalist in Madagascar: a record of observation . . . of the animal life of the island. *8vo. pp. 320. 37 pl. 3 maps. index.* *London.*

Sketches of animal life occur throughout the volume; 210 species of birds inhabit the island, nearly a seventh of which are rapacious.

SIDDALL, JOHN D.

1911. The formation of the Chester society of natural science, literature, and art, and an epitome of its subsequent history. *8vo. pp. 63. illust.* *Chester.*

SIDEBOTHAM, HELEN M.

[**1927**]. Mysteries of the zoo. *pp. 191. 8 pl. T. of c.* *London.*

SIEBENBÜRGISCHER VEREIN FÜR NATURWISSENSCHAFTEN, HERMANNSTADT.

1901–2. Abhandlungen.

1849–*date.* Verhandlungen und Mitteilungen.

SIEBENROCK, FRIEDRICH. **1906.** *See* VOELTZKOW, ALFRED.

SIEBERT, G. **1901.** *See* LYDEKKER, R.

SIEBOLD, KARL THEODOR ERNST VON [1804–85].

1863. Die süsswasserfische von Mitteleuropa. *8vo. pp. 8+430. 2 col. pl. text-figs.* *Leipzig.*

A very important, systematic treatise on European freshwater fishes.

SIEBOLD, PHILIPP FRANZ VON [1796–1866] and **others.**

1833–50. Fauna Japonica, sive descriptio animalium, quae in itinere per Japoniam . . . 1823–30, etc. *6 vols. folio.* *Lugduni Batav.*

This classic treatise, when complete, is very scarce, partly because it was irregularly issued over a period of 17 years. The author was assisted in its preparation by several distinguished naturalists, C. J. Temminck and H. Schlegel describing the Reptiles, a section with *pp. 21+144, 27 pls., 1 map*, 1833–8; Land Mammals by C. J. Temminck, *pp. 59, and 20 pl.* (1844). The remaining vertebrates are described and depicted by the author, i.e. Marine Mammals, *pp. 26, 10 pl.*, 1844; Birds, *pp. 141, 120 col. pl.*, 1844–50; Fishes, *pp. 323, 160 col. pl.*, 1842–50. Various parts of this series have been published separately.

1850. Mammalia faunae Japonicae. *folio. 30 col. pl.* *Lugduni Batav.*

A rare and valuable work on Japanese mammals, illustrated with well-executed colored plates.

SIEDHOF, CARL FRIEDRICH WILHELM.

1845. Naturgeschichte der Stubenvögel Deutschlands. *8vo. pp. 16+360. 4 pl.* *Braunschweig.*

SIENA UNIVERSITÀ. Istituto Anatomico. *See* MONITORE ZOOLOGICO ITALIANO.

SILCOX, SIDNEY SHEDDON [1866–] and **STEVENSON,** O. J. [1869–].

1906. The nature study course. *8vo. pp. (6)+121. 7 figs. T. of c. 4 append.* *Toronto.*

A manual of Nature Study courses (including all forms of animal life) suggestive to teachers in the various provinces of the Dominion of Canada. That for Ontario is given in Appendix A; for Manitoba in B, and for Nova Scotia in C.

1908. Modern nature study. *12mo. pp. 9+339. 12 pl. (col.). 350 figs. bibliogr. index.* *Toronto.*

An excellent, popular manual on Nature Study divided into two parts.

SILLIMAN'S JOURNAL OF SCIENCE. *See* AMERICAN JOURNAL OF SCIENCE.

SILLOWAY, PERLEY MILTON.

1897. Sketches of some common birds. *8vo. pp. 331. 18 pl. T. of c.* *Cincinnati.*

1901. Summer birds of Flathead Lake, Montana. *8vo. pp. 83. 16 pl. index.* *Missoula, Montana.*

1903. The birds [176 species] of Fergus County, Montana. *8vo. pp. 77. 19 pl. bibliogr. index.* *Lewistown, Mont.*

1920. Guide to the summer birds of the Bear Mountain and Harriman Park sections of the Palisades Interstate Park, New York. *8vo. pp. 105. 33 figs. index.* *Syracuse, N.Y.*

SIM, GEORGE [1835–1908].

1903. The vertebrate fauna of 'Dee'. *8vo. pp. 295. 8 pl. bibliogr. index.* *Aberdeen.*

SIMEON, CORNWALL.

1860. Stray notes on fishing and natural history. *12mo. pp. 20+263. 11 figs. index.* *Cambridge, England.*

SIMLA NATURALISTS' SOCIETY.
1885–6. Journal.

SIMON, EUGÈNE LOUIS [1838–].
1921. Histoire naturelle des *Trochilidæ* (Synopsis et catalogue). *4to. pp. 6+416.* *Paris.*
This important contribution to our knowledge of humming-birds is a much enlarged successor of his *Catalogue*, 1897, to which the author refers in the preface. The work is divided into two parts—the first one, entitled *Synopsis*, gives a diagnostic description of genera and species, while the second part, *Catalogue*, furnishes a brief but sufficient systematic description of the different varieties, with a complete synonymy, range, etc.

SIMPSON, ALEXANDER NICOL.
1905. Familiar Scottish birds. *16mo. pp. 160. T. of c.* *Paisley.*

SIMPSON, J. C. **1909.** *See* CAMBRIDGE UNIVERSITY.

SIMPSON-BAIKIE, EDWIN.
[1878–9]. The international dictionary, for naturalists and sportsmen, in English, French, and German. *8vo. pp. 281.* *London.*
A most useful dictionary, the general contents of which are set forth in the title.

SIMROTH, HEINRICH [1851–1923].
1891. Die Entstehung der Landtiere; ein biologischer Versuch. *8vo. pp. 8+492. illust.* *Leipzig.*
1914. Die Pendulationstheorie. 2nd ed. *8vo. pp. 16+597. illust.* *Berlin.*

SINCLAIR, WILLIAM JOHN [1877–].
1906. Marsupialia of the Santa Cruz beds. *folio. pp. 128. illust.* *Princeton, N.J.*
Author's separate from *Reports Princeton University Expeditions to Patagonia*, 1906.

SINEL, JOSEPH.
1906. An Outline of the Natural History of our shores, etc. *8vo. pp. 16+347. 1 pl. text-figs.* *London.*

SINGAPORE NATURALIST. (**Singapore Natural History Society.**)
1922–*date*. Includes Society's Proceedings and Transactions.

SINGER, CHARLES [1876–] and **others.**
1917–21. Studies in the History and Method of Science. *2 vols.* [O.]
These studies include admirable chapters on Aristotle and Greek biology.
1927. The Herbal in Antiquity. *8vo. pp. 52. 10 col. pl. text illust.* *London.*
Author's reprint from the *Journal of Hellenic Studies*, vol. xlvii, containing numerous reference to animals.

SINHALESE OLA (Palm-leaf Manuscript).
ca. **1812.** Natural history, with anatomical illustrations of serpents, fishes, monsters, etc. *4×2½ in.* Modern covers (lacquered and painted after antique models), cord and button.
Sinhalese MS. literature contains very few texts on zoology, and this example is excessively rare. The author and scribe are both unknown, nor is there any indication of the place in which it was written.

SITGREAVES, LORENZO. **1853.** *See* UNITED STATES. Report of an Expedition down the Zuni and Colorado Rivers.

SITZUNGSBERICHTE D. GESELLSCHAFT NATURFORSCHENDER FREUNDE, BERLIN. **1839–*date*.** *See* GESELLSCHAFT . . . FREUNDE.

SJÖSTEDT, BROR YNGVE [1866–].
1895. Zur Ornithologie Kameruns, nebst . . . die Säugetiere, etc. *4to. pp. 120. 10 col. pl.* *Stockholm.*
The above title forms Bd. XXVII, No. 1, of the *Handlingar, Svenska Vetenskaps-Akademien*, and is a useful contribution to the vertebrate zoology of the Cameroons.
1897. Reptilien aus Kamerun. *3 pl.* *Stockholm.*
1910. Wissenschaftliche Ergebnisse der Schwedischen Zoologischen Expedition nach dem Kilimandjaro . . . Deutsch-Ostafrika, 1905–6, etc. *3 vols. 4to. pp. 2,328. 87 pl. text-figs.* *Stockholm.*
This is one of the most valuable records of exploration into the wilds of East Africa we possess. The approaches and plateaux of the highest mountain in Africa are the habitat of many rare faunal and floral species described and depicted by the author and his colleagues. Authors' separates were issued (beginning with 1907) and are commonly met with. E. Lönnberg described the mammals, Bd. II, *pp. 56, 1 pl.*; birds by Y. Sjöstedt, Bd. III, *pp. 173, 5 pl., illust. text*; reptiles and batrachians, Bd. IV, *pp. 28, 1 pl.*, and fishes, *pp. 8*, by E. Lönnberg. Most of the volumes are devoted to entomology.

SJÖSTEDT, Y. *See* SJÖSTEDT, B. Y.

SKANDINAVISKE NATURFORSKERES MOEDE. *Gothenburg.*
1840–98. Forhandlinger.

SKERTCHLY, SYDNEY BARBER JOSIAH [1850–].
1878. *See* MILLER, SAMUEL HENRY.
1886. *See* TYLOR, ALFRED.

SKINNER, E. R.
1905. A list of the birds of British India. *8vo. pp. 44.* *St. Mary Cray, Kent.*

SKINNER, JOSEPH.
1805. The Present State of Peru. *8vo. pp. 14+487. 1 col. pl. text-figs. index.* *London.*

SKINNER, MILTON PHILO [1879–].
1928. A guide to the winter birds of the North Carolina sandhills. *8vo. pp. xiv+301. front. (col.). 14 pl. (13 col.). 30 figs. bibliogr. index.* *Albany.*

SKOTTSBERG, CARL JOHAN FREDRIK [1880–] and **LÖNNBERG,** EINAR.
1920–4. The natural history of Juan Fernandez and Easter Island. *3 vols. 8vo.* Vol. I, *pp. 20. 15 pl. 3 figs.* Vol. II, *pp. 550. 33 pl. (3 col.). 165 figs. bibliogr. index.* Vol. III, *pp. 128. 5 pl. 39 figs. bibliogr.* *Uppsala.*
General zoology is chiefly discussed in Vol. III. The portion devoted to ornithology of the two islands by Einar Lönnberg is in part 1 of vol. III, with four illustrations in the text.

SKOVGAARD, P.
1920. Den sorte Stork særlig i Danmark. *4to. pp. 56. 39 figs. 1 map. bibliogr.* *Viborg.*
The Black Stork in Denmark, the north-westerly extremity of the range of *Ciconia nigra*, illustrated from photographs of the young birds in the nest at all stages.

SLANEY, ROBERT AGLIONBY [1792–1862].
1833. An outline of the smaller British birds. 2nd ed. *8vo. pp. viii+168. 13 figs. T. of c.* *London.*

SLATER, HENRY HORROCKS.
1879. *See* ROYAL SOCIETY OF LONDON.

1898. Limicolae. *See* BUTLER, A. G.

1901. Manual of the Birds of Iceland. *8vo. pp. 23 +150. 3 pl. 1 map.* *Edinburgh.*

SLOANE, HANS [1660–1753].
1707–25. A voyage to the islands Madera, Barbados, Nieves, S. Christophers and Jamaica, with the natural history of the herbs and trees, four-footed beasts, fishes, birds, insects, reptiles, &c. of the last of those islands. *2 vols. folio. pp. 9+ 274. pl. map.* *London.*

This great work, by the founder of the British Museum, was published after being submitted for the criticism and approval of John Ray.

SLONAKER, JAMES ROLLIN [1866–].
1912. *See* STANFORD UNIVERSITY, CALIFORNIA.

1915. The eyelids and lachrymal apparatus of birds. *See* WOOD, CASEY A.

1918. Eye of the English Sparrow. *8vo. pp. 50. illust.* *Boston.*

Author's reprint from the *Journal of Morphology.*

SMALL ANIMAL WORLD. *Baltimore.*
1914–*date.*

1914–19. As Pet Stock World.

SMALLWOOD, W. M.
1927. Man—the Animal. Revised edition. *12mo. pp. 16+235. 32 illust.* *New York.*

The distinguished author applies the fundamental laws of biogenesis to the species *Homo sapiens* as he would to any other animal, elaborating certain aspects of the problem—reproduction, heredity, evolutionary processes, etc.

SMART, THOMAS GREGORY.
1886. Birds on the British list. *8vo. pp. xxiv+ 148.* *London.*

SMEE, ALFRED [1818–77].
1872. My garden, together with a general description of its natural history. *8vo. pp. xx+650. 22 pl. 32 vignettes. 1,197 figs. index.* *London.*

The birds visiting the garden are described on pp. 522–55, with 74 illustrations.

SMELLIE, WILLIAM [1740–95].
1790–9. The philosophy of natural history. *2 vols. 4to.* Vol. I, *pp. xiii+547. index.* Vol. II, *pp. xii+ 515. index.* *Edinburgh.*

A memoir of this distinguished zoologist was published in Jardine's *Naturalist's Library*, vol. 24, 1839.

1792–3. The Natural History of Birds. *See* BUFFON, G. L.

******** and **WARE,** JOHN.
1824. The philosophy of natural history, . . . With an introduction and various additions and alterations, intended to adapt it to the present state of knowledge. By John Ware. *8vo. pp. vi +336. glossary.* *Boston.*

SMILES, SAMUEL [1812–1904].
1876. Life of a Scotch naturalist: Thomas Edward, associate of the Linnæan society. *8vo. pp. xix+438. 7 pl. 25 figs. T. of c. append.* *London.*

This popular biography (by the famous author of *Self-Help*) recounts not only his hero's contributions to science but also the hardships and disappointments the humble shoemaker suffered in his search after knowledge. The appendix contains an annotated list of Banffshire birds (215 species) collected by Edward. A fifth edition appeared in 1877, with an American printing in the same year.

SMITH, A. C.
1870. Narrative of a Spring Tour in Portugal. *8vo.* *London.*

Chapter XV deals with the birds.

SMITH, ALFRED CHARLES [1822–98].
1887. The birds of Wiltshire. *8vo. pp. 25+588. index.* *London*

[1891?]. Recent occurrence of the great bustard in Wilts. *8vo. pp. 4.* *[Devizes?]*

SMITH, ANDREW [1797–1872].
1838–49. Illustrations of the zoology of South Africa; consisting chiefly of figures and descriptions of the objects of natural history collected during an expedition into the interior of South Africa, in the years 1834, 1835, and 1836. *Mammalia, Aves, Reptilia, Pisces,* Invertebratae. *5 vols. in 4. 4to. 270 col. pl. Aves,* vol. II, *132 ll. 114 pl. (col. by Ford). index.* *London.*

This work was issued in 28 parts, the dates and contents of which are given by Waterhouse in the *Proc. Zool. Soc. London*, 1880, pp. 489–91.

1880. Sir A. Smith's miscellaneous Ornithological Papers. Edited by O. Salvin. *4to. pp. vi+127.* *London.*

The pagination of the original papers in the 'South African Quarterly Journal' and the 'Report of the Expedition for Exploring Central Africa' is given in each case. *See also* WILLUGHBY SOCIETY.

SMITH, ARTHUR DONALDSON [1864–].
1897. Through unknown African countries; the first expedition from Somaliland to Lake Lamu. *8vo. pp. xvi+471. 27 pl. 44 figs. 6 maps. 10 append. index.* *New York and London.*

This is the first impression (printed in the United States), in which 'Lake Lamu' appears instead of 'Lake Rudolf'. References to African faunae frequently occur, and in Appendix A there is a systematic report on the Fishes, by A. Günther.

SMITH, B. WEBSTER.
[*c.* 1926]. The world in the past. *16mo. pp. xii+ 355. 111 pl. (48 col.). text-figs. index.* *London.*

SMITH, C. W. and **D'OYLY,** C.
1829. Oriental ornithology [illust.] by C. W. Smith and Sir C. D'Oyly. Behar Lithographic Press. *folio. illum. tit. 12 pl. (col.).* *Behar (?).*

A series of 12 colored plates of Indian birds, unnamed and without text. The plates range from 8½×12 to 7⅞×9½, mounted on sheets of a larger size. A printed cover is lettered, 'N. 2 of the Oriental Ornithology, containing 12 subjects'.

SMITH, CECIL.
1869. The birds of Somersetshire. *12mo. pp. 10+ 643.* *London.*

1879. The birds of Guernsey and the neighbouring islands, Alderney, Sark, Jethou, Herm. *8vo. pp. xix+223. index.* *London.*

SMITH, *Mrs.* CHARLOTTE (born TURNER) [1749–1806].
1815. A natural history of birds. *2 vols. 18mo.* Vol. I, *pp. iv+145. 11 pl.* Vol. II, *pp. 157. 11 pl. index. errata.* *London.*

Another edition, with the *errata* of the present copy made good, appeared in 1819. The library copy of the latter is a presentation from Major Mullens to Joseph Whitaker with inlaid autograph letter.

SMITH, CHRISTEN [1785–1816].
1818. Narrative of an expedition to explore the river Zaire. *See* TUCKEY, *Capt.* J. K.

SMITH, DAVID SETH-. *See* SETH-SMITH, DAVID.

SMITH, FRANCIS.
1868. The canary; its varieties, management, and breeding. *12mo. pp. viii+146. 12 pl. (col.). 4 figs. T. of c.* *London.*

Another edition (1872) is an exact reprint of the above.

SMITH, FREDERICK [1857–].
1919–24. The Early History of Veterinary Literature, etc., to A.D. 1700. *2 vols. 8vo. illust.* [O. 7345.] *London.*

SMITH, H. A.
1887. Animals, Birds and Fishes. *340 illust.* *New York.*

SMITH, HARLAN INGERSOLL [187?–].
1914. Canada. Dominion parks branch. Handbook of the Rocky Mountains Park Museum. *8vo. pp. 126. front. T. of c. bibliogr. Ottawa, Canada.*

A reference handbook to the natural history of the whole region in and around the Rocky Mountains Park, as well as to the specimens in the Museum, the living animals in the Zoo near the Museum, in the large Paddock, about two miles away on the road to Bankhead, and running at large in the vicinity of Banff. The birds will be found described on pp. 38–85.

SMITH, HAROLD HAMEL [1867–].
1910. Aigrettes & birdskins, the truth about their collection and export. *8vo. pp. (6)+138. T. of c.* *London.*

In this book the author 'chases the devil round the bush' in trying to show that 'Judged by the standard that prevails in England (the most humane and considerate country with regard to animals and birds), the methods employed in the collection of bird-skins and feathers in the Tropics are not cruel'. The present Compiler suggests that he spend a few months in South and Middle America in an unprejudiced investigation of this matter—with his eyes wide open, undimmed by the fogs of trade.

SMITH, H. GUTHRIE-. *See* GUTHRIE-SMITH, WILLIAM HERBERT.

SMITH, J. A. **1908.** *See* ARISTOTLE.

SMITH, JAMES EDWARD [1759–1828].
1811. Lachesis Lapponica, etc. *See* LINNAEUS, CAROLUS.

1821. A selection of the correspondence of Linnaeus and other naturalists from the original manuscripts. *2 vols. 8vo. illust.* *London.*

SMITH, JEROME V. C.
1833. Natural History of the Fishes of Massachusetts. *2 pts. 12mo. pp. 400. illust.* *Boston.*

A well written little manual (part 2 being devoted to Trout) by a New England physician.

SMITH, MALCOLM.
1926. Monograph of the Sea-Snakes. *8vo. 2 pl.* *?London and Singapore.*

**** and **KLOSS,** BODEN.
1930. The Reptilia and Amphibia of the Malay Peninsula. *8vo. pp. 18+149.* *Singapore.*

Authors' reprint (*Bull. Raffles Museum*, No. 3). A valuable and much needed treatise.

SMITH, *Mrs.* NANCY W. PAINE and **FORBUSH,** EDWARD HOWE.
[**1922**]. (The) Provincetown book. *pp. 260. front. 38 figs.* *Brockton, Mass.*

SMITH, R. CADWALADR.
n.d. Birds and their ways. *12mo. pp. 88. pl. text-figs.* *New York.*

SMITH, REGINALD BOSWORTH [1839–1908].
1905. Bird life and bird lore. *8vo. pp. 19+434. 16 pl. illust. text. index.* *London.*

SMITH, THOMAS, *of Spa Fields' Chapel.*
1810. Le cabinet du jeune naturaliste; ou, Tableaux intéressants de l'histoire des animaux; tr. de l'anglais. 6 vols. *16mo. illust.* *Paris.*

SMITH, W. H.
1882. Reptilia and Amphibia. *See* OHIO, STATE OF.

SMITH, WILLIAM RAMSAY [1859–] and **NORWELL,** J. STEWART.
n.d. Illustrations of zoology: invertebrates and vertebrates. 2nd ed. *4to. pp. 11+70. 70 pl. append. index.* *Edinburgh.*

An interesting work on comparative anatomy, illustrated by many helpful diagrams.

SMITHSONIAN INSTITUTION. (Founded 1846.)
1847–1930. Annual Report, etc. *Washington.*

The early *Reports* of this famous series—to which most of the noted naturalists in North America have contributed—are very rare. In 1873 the large collections of the Institution were gathered as a department of the *United States National Museum*, and in 1884 *Annual Reports* of these appeared as separate publications. As in the case of other publications by the parent *Institution* and its branches, many of the contributed papers have been published as author's reprints and, as such, have been separately annotated in this *Catalogue*.

1848–1930. Smithsonian Contributions to Knowledge. *4to.*

A very important series to which most American zoologists of note have contributed during the past 80 years.

1861. Circular in reference to Collecting Nests and Eggs of North American Birds. *12mo. pp. 11+pp. 22.*

Introductory remarks are made by the Secretary, Joseph Henry, with a list of birds breeding in various sections of North America. Bound in is a second (unnumbered) *Smithsonian Misc. Coll.*, 'Instructions in reference to collecting nests', etc., undated, with a signed Appendix, all introductory to Prof. A. Newton's previously published article on 'Suggestions for forming Collections of Birds' Eggs, figs. in text'.

1862–1930. Smithsonian Miscellaneous Collections.

Another series containing many valuable essays on zoological subjects. There was a quarterly issue under this heading, 1903–10.

******. U.S. National Museum.**
1875–1930. Bulletin, etc. *8vo.* *Washington.*

Nos. 1–16 of this important periodical were also issued as part of the *Smithsonian Miscellaneous Collections*, but they now have a separate existence and issue.

1879–1930. Proceedings, etc. Vol. I–*date. 8vo.*

Vols. I–VI form part of the *Smithsonian Miscellaneous Collections*, altogether one of the most important natural history periodicals.

1892–1930. Special Bulletin. No. 1–*date. 4to.*

One of the most valuable of the Smithsonian publications.

SMITHWICK, J. W. P.
1897. A List of Birds of North Carolina. *Raleigh, N.C.*

Author's separate from *Journ. Elisha Mitchell Scientific Soc.*, vol. 8.

SMITT, FREDRIK ADAM [1839–1904].
1892–5. *See* WRIGHT, W. VON.

1899–1907. *See* SWEDEN. Voyages. Magallanes.

SMUTS, JOHANNES.
1832. Dissertatio Zoologica, enumeratio Mammalium Capensium continens. *4to. pp. 14+108. 3 col. pl.* *Leidae.*

SNELLEMAN, JOH. F. [1852–].
1881–92. *See* VETH, P. J.

1887. Bijdragen tot de kennis der fauna van Midden-Sumatra. *4to.* Author's excerpt from the *K. Nederlandsch Aardrijkskundig Genootschap. Midden-Sumatra. Reizen en ondersoekingen,* vol. 4, pt. 1. *Leiden.*

SNETHLAGE, EMILIA.
1914. Catalogo das aves amazonicas, contendo todas as especies descriptas e mencionadas até 1913. *8vo. pp. 530. 6 pl.* *Burg, Germany.*
Author's reprint published in Germany. A descriptive catalogue (in Portuguese) of the Birds of Brazil illustrated only by six plates of details in outline.

SNODGRASS, ROBERT E. and **HELLER,** EDMUND.
1902. Birds of Clipperton and Cocos Islands. *pp. 13.*

SNOUCKAERT VAN SCHAUBURG, R. C. E. G. J.
1908. Avifauna Neerlandica. Lijst der tot dusverre in Nederland in wilden staat waargenomen Vogelsoorten. *4to. pp. 160. 12 col. pl. index.* *Leeuwarden.*
In all, 346 forms of Netherlands avifauna are carefully and fully described. A bibliography, a list of vernacular names, and a number of local records are among the contents of this important treatise on Dutch ornithology.

SNOW, FRANCIS HUNTINGTON [1840–].
1872. A catalogue of the birds of Kansas. 2nd ed. *8vo. pp. 16.* *Kansas City.*
The list is based upon the author's personal observations during six years residence in Kansas, the present edition containing additions by Baird and Allen. It lists 282 species, representing 39 families. A third edition was issued in 1875.

1875. A catalogue of the birds of Kansas. *8vo. pp. 14.* *Kansas City.*
In this edition 13 species and one variety have been added (a total of 295 species representing 45 families) since the publication of the second edition, in October 1872.

SNOW, HENRY JAMES [1848–].
1897. Notes on the Kuril Islands. *8vo. pp. 91. 2 maps. index.* *London.*

SOCIEDAD COLOMBIANA DE CIENCIAS NATURALES. *Bogotá.*
1913–*date.* Boletín.

1913–18. As Sociedad de Ciencias Naturales del Instituto de la Salle, Bogotá.

SOCIEDAD CUBANA DE HISTORIA NATURAL 'FELIPE POEY', HAVANA.
1915–*date.* Memorias.

SOCIEDAD DE CIENCIAS, FÍSICAS E NATURALES DE CARÁCAS. *See* VARGASIA.

SOCIEDAD DE CIENCIAS, FÍSICAS E NATURALES, MALAGA. *See* REVISTA DE MALAGA.

SOCIEDAD DE CIENCIAS NATURALES DEL INSTITUTO DE LA SALLE, BOGOTÁ. *See* SOCIEDAD COLOMBIANA DE CIENCIAS NATURALES.

SOCIEDADE PORTUGUESA DE SCIENCIAS NATURAIS. *Lisbõa.*
1907–*date.* Bulletin.

1913–*date.* Memorias—série Zoologique.
See also ARCHIVES PORTUGAISES DES SCIENCES BIOLOGIQUES, and JORNAL DE SCIENCIAS NATURAIS.

SOCIEDAD ESPAÑOLA DE HISTORIA NATURAL. *Madrid.*
1872–1901. Anales.

1901–*date.* Boletín.

1903–*date.* Memorias.

SOCIEDAD IBÉRICA DE CIENCIAS NATURALES, ZARAGOZZA.
1892–7. Boletín.

1902–*date.* Boletín. New series.

1919–*date.* Memorias.

SOCIEDAD MEXICANA DE HISTORIA NATURAL. *See* NATURALEZA. *Mexico.*

SOCIEDAD NATURALISTAS NEO-GRANDINOS. *Bogotá.*
1860–1. Contribuciones.

SOCIEDAD ORNITOLÓGICA DEL PLATA. *See* HORNERO.

SOCIEDAD PALEONTOLÓGICA, BUENOS AIRES.
1866–8. Actas.

SOCIEDAD ZOOLÓGICA ARGENTINA. *See* PERIÓDICO ZOOLÓGICO.

SOCIETÀ ADRIATICA DI SCIENZE NATURALI IN TRIESTE.
1874–*date.* Bollettino.

SOCIETÀ ITALIANA DI SCIENZE NATURALI E MUSEO CIVICO DI STORIA NATURALE. *Milan.*
1855/9–*date.* Atti.

1864–71. Memorie.

1895–*date.* Memorie. New series.
See also NATURA.

SOCIETÀ DEI NATURALISTI E MATEMATICI DI MODENA.
1886–*date.* Atti (and Annuario).

SOCIETÀ DI NATURALISTI IN NAPOLI.
1887–*date.* Bollettino.
See also RIVISTA ITALIANA DI SCIENZE NATURALI E LORO APPLICAZIONI.

SOCIETÀ DEI NATURALISTI SICILIANI, PALERMO. *See* NATURALISTA SICILIANO.

SOCIETÀ ROMANA PER GLI STUDI ZOOLOGICI.
1892–1911. Bollettino. Vols. I–VIII. Continued as *Società Zoologica Italiana.* Bollettino.

SOCIETÀ DI SCIENZE NATURALI ED ECONOMICHE DI PALERMO.
1877–9. Bollettino.

1891–*date.* Bollettino. New series.

SOCIETÀ DI SCIENZE NATURALI TOSCANA.
1895–*date.* Atti e Processi.

SOCIETÀ SICILIANA DI SCIENZE NATURALI. *See* NATURALISTA SICILIANO.

SOCIETAS PRO FAUNA ET FLORA FENNICA. *See* HELSINGFORS.

SOCIETAS NATURAE SCRUTATORUM LIPSIENSIS. *See* NATURFORSCHENDE GESELLSCHAFT ZU LEIPZIG.

SOCIETAS SCIENTIARUM NATURALIUM CROATICA. *See* HRVATSKO PŘIRODOSLOVNA DRUŠTVO U ZAGREBU.

SOCIETAS SCIENTIARUM NATURALIUM MORAVIAE. *See* MORAVSKA PŘÍRODOVEDĚCKA SPOLEČNOST, BRÜNN.

(R.) **SOCIETAS SCIENTIARUM UPSALIENSIS.** *See* (K.) VETENSKAPS-SOCIETETEN I UPSALA.

SOCIETAS ZOOLOGICA TOKYONENSIS. *See* ANNOTATIONES ZOOLOGICAE JAPONENSES.

SOCIETAS ZOOLOGICO-BOTANICA VANAMO. *See* SUOMALAISEN ELÄIN-JA KASVITIETEELLISEN SEURA VANAMO.

SOCIETÀ TICINESE DI SCIENZE NATURALI. 1904–*date.* *Locarno.*

SOCIETÀ TOSCANA DI SCIENZE NATURALI DI PISA.
1875–*date.* Memorie.

1878–*date.* Processi Verbali.

SOCIETÀ ZOOFILA NAPOLETANA. *See* ZOOFILO.

SOCIETÀ ZOOLOGICA ITALIANA. *Rome.*
1892–8. Bollettino. Series 1.

1900–11. Bollettino. Series 2.

1912–14. Bollettino. Series 3.

1919. Bollettino. Series 4.

1926–*date.* Bollettino. Series 5.
See also SOCIETÀ ROMANA PER GLI STUDI ZOOLOGICI.

SOCIETÀ DEI ZOOTECNICI, MILAN.
1882–5.

SOCIÉTÉ ANONYME SCIAMA.
1912. Plumes et panaches; un centenaire (1812–1912). *folio. pp. 74. illust.* *Paris.*

SOCIÉTÉ DE BIOLOGIE, PARIS.
1849–1930. Comptes rendus.

SOCIÉTÉ DE BORDA À DAX.
1876–*date.* Bulletin. *index.*

SOCIÉTÉ FRIBOURGEOISE DES SCIENCES NATURELLES. *Fribourg.*
1879/80–*date.* Bulletin (Comptes Rendus).

1907–*date.* Memoirs (Zoologie).

SOCIÉTÉ HELVÉTIQUE (SUISSE) DES SCIENCES NATURELLES. *See* ALLGEMEINE SCHWEIZERISCHE GESELLSCHAFT.

SOCIÉTÉ D'HISTOIRE NATURELLE DE L'AFRIQUE DU NORD. *Algiers.*
1909–*date.* Bulletin.

SOCIÉTÉ D'HISTOIRE NATURELLE ET D'ANTHROPOLOGIE DE LOIRE-ET-CHARENTE, CHAMBÉRY.
1883–*date.* Bulletin.

SOCIÉTÉ D'HISTOIRE NATURELLE DES ARDENNES, CHARLEVILLE.
1894–1911. Bulletin.

SOCIÉTÉ D'HISTOIRE NATURELLE D'AUTUN.
1888–*date.* Bulletin.

SOCIÉTÉ D'HISTOIRE NATURELLE D'AUVERGNE, CLERMONT-FERRAND.
1890. Bulletin.

SOCIÉTÉ D'HISTOIRE NATURELLE DE COLMAR.
1860–88. Bulletin.

1889–*date.* Bulletin. New series.

1889–1917. Has also German title: Naturhistorische Gesellschaft in Colmar.

1883–5. Bulletin—Supplement.

SOCIÉTÉ D'HISTOIRE NATURELLE DE L'ÎLE MAURICE. *See* SOCIÉTÉ ROYALE DES ARTS ET DES SCIENCES DE MAURICE.

SOCIÉTÉ D'HISTOIRE NATURELLE DE MÂCON.
1893–1915. Bulletin.

1920–*date.* Bulletin. New series.

SOCIÉTÉ D'HISTOIRE NATURELLE DE METZ. *See* SOCIÉTÉ D'HISTOIRE NATURELLE DE LA MOSELLE.

SOCIÉTÉ D'HISTOIRE NATURELLE DE LA MOSELLE. *Metz.*
1835–*date.* Bulletin.

SOCIÉTÉ D'HISTOIRE NATURELLE DE PARIS.
1792. Actes.

1799. Mémoires.

1823–34. Mémoires.

SOCIÉTÉ D'HISTOIRE NATURELLE DE REIMS.
1877–*date.* Bulletin.

1878–80. As Procès-Verbaux.

SOCIÉTÉ D'HISTOIRE NATURELLE DE SAVOIE, CHAMBÉRY.
1887–*date.* Bulletin.

1923–*date.* Compte-rendu.

SOCIÉTÉ D'HISTOIRE NATURELLE ET DES SCIENCES BIOLOGIQUES ET ÉNERGÉTIQUES, TOULOUSE. *See* SOCIÉTÉ D'HISTOIRE NATURELLE DE TOULOUSE.

SOCIÉTÉ D'HISTOIRE NATURELLE DE STRASBOURG. *See* SOCIÉTÉ DES SCIENCES DE NANCY.

SOCIÉTÉ D'HISTOIRE NATURELLE DE TOULON.

1910–21. Annales.

SOCIÉTÉ D'HISTOIRE NATURELLE DE TOULOUSE.

1866–*date*. Bulletin.

SOCIÉTÉ D'HISTOIRE NATURELLE DU DOUBS, BESANÇON.

1899–*date*. Bulletin.

SOCIÉTÉ IMPÉRIALE DES AMIS DES SCIENCES NATURELLES, ANTHROPOLOGIQUES ET ETHNOGRAPHIQUES, MOSCOW. *See* OBSHCHESTVO LIUBITELEĬ ESTESTVOZNANĬÍÀ, ANTROPOLOGĬI I ÉTNOGRAFĬI, MOSCOW.

SOCIÉTÉ IMPÉRIALE DES NATURALISTES DE MOSCOU. (Moskovskoe Obshchestvo Lîûbiteleĭ Prirody. *Moscow.*

1829–86. Bulletin.

1887–*date*. Bulletin. New series.

—— Mémoires. *See* NOUVEAUX MÉMOIRES.

1806–*date*. Nouveaux Mémoires. Only one has Russian title.

—— Zapiski. *See* NOUVEAUX MÉMOIRES.

See also BULLETIN DE LA SOCIÉTÉ IMPÉRIALE, etc.

SOCIÉTÉ IMPÉRIALE DES SCIENCES NATURELLES DE CHERBOURG. *See* SOCIÉTÉ NATIONALE DES SCIENCES NATURELLES ET MATHÉMATIQUES DE CHERBOURG.

SOCIÉTÉ IMPÉRIALE ZOOLOGIQUE D'ACCLIMATATION. *See* SOCIÉTÉ NATIONALE D'ACCLIMATATION DE FRANCE.

SOCIÉTÉ LINNÉENNE DE BORDEAUX.

1826–*date*. Actes.

1829–75. Procés-Verbaux (in Actes).

1875–*date*. Procés-Verbaux.

See also BORDEAUX.

SOCIÉTÉ LINNÉENNE DU CALVADOS. *See* SOCIÉTÉ LINNÉENNE DE NORMANDIE.

SOCIÉTÉ LINNÉENNE DE LA CHARENTE-INFÉRIEURE, SAINT-JEAN-D'ANGÉLY.

1877/9–82. Bulletin.

SOCIÉTÉ LINNÉENNE DU DÉPARTEMENT DE MAINE-ET-LOIRE.

1853–79. Annales. (All pub.)

SOCIÉTÉ LINNÉENNE DE LYON.

1826–52. Annales. Series 1.

1852/3–*date*. Annales. Series 2.

1926–*date*. Bulletin.

1839–44. Compte-rendu.

SOCIÉTÉ LINNÉENNE DU NORD DE LA FRANCE. *Amiens.*

1840–72. Bulletin.

1872–*date*. Bulletin Mensuel.

1838. Compte-rendu.

1905–8. Mémoires.

SOCIÉTÉ LINNÉENNE DE NORMANDIE. *Caen.*

1855–65. Bulletin. Series 1.

1866–76. Bulletin. Series 2.

1876–86. Bulletin. Series 3.

1886–96. Bulletin. Series 4.

1897–1906. Bulletin. Series 5.

1907–17. Bulletin. Series 6.

1918–*date*. Bulletin. Series 7.

1824–*date*. Mémoires. (Suspended, 1873–91.)

1834–7. Séance Publique.

SOCIÉTÉ LINNÉENNE DE PARIS.

1874–97. Bulletin. Series 1.

1899. Bulletin. Series 2. (All pub.)

1788/1822–7. Mémoires. (All pub.)

SOCIÉTÉ LINNÉENNE DE PROVENCE. *Marseilles.*

1909–*date*. Bulletin.

1909–*date*. Mémoires.

SOCIÉTÉ LINNÉENNE DE LA SEINE-MARITIME.

1913–*date*. Bulletin.

SOCIÉTÉ NATIONALE D'ACCLIMATATION DE FRANCE.

1854. As Société Zoologique d'Acclimatation.

1854–70. As Société Impériale Zoologique d'Acclimatation.

1871–81. As Société d'Acclimatation.

1854–63. Bulletin. (Revue des Sciences Naturelles Appliquées.)

1864–73. Bulletin. Series 2.

1874–83. Bulletin. Series 3.

1884–8. Bulletin. Series 4.

1889–*date*. Bulletin.

See also REVUE D'HISTOIRE NATURELLE APPLIQUÉE.

SOCIÉTÉ NATIONALE DES SCIENCES NATURELLES ET MATHÉMATIQUES DE CHERBOURG.

1852–*date*. Mémoires.

SOCIÉTÉ DES NATURALISTES DE L'AIN, BOURG.
1901–*date.* Bulletin.

SOCIÉTÉ DES NATURALISTES ET DES AMATEURS DES SCIENCES NATURELLES DE BESSARABIE, KISHINEV.

SOCIÉTÉ DES NATURALISTES ET DES AMIS DE LA NATURE EN CRIMÉE. *See* KRYMSKOE OBSHCHESTVO ESTESTVOISPYTATELEĬ I LÍÛBITELEĬ PRIRODY, SEVASTOPOL.

SOCIÉTÉ DES NATURALISTES ET ARCHÉOLOGUES DU NORD DE LA MEUSE.
1889–*date.* Recueil.

SOCIÉTÉ DES NATURALISTES D'IRKOUTSK. *See* IRKUTSKOE OBSHCHESTVO ESTESTVOISPYTATELEĬ.

SOCIÉTÉ DES NATURALISTES DE JAROSLAW. *See* ÎAROSLAVSKOE ESTESTVENNO-ISTORICHESKOE OBSHCHESTVO.

SOCIÉTÉ DES NATURALISTES DE KIEV. *See* KIEF UNIVERSITET.

SOCIÉTÉ DES NATURALISTES LUXEMBOURGEOIS. *See* VEREIN LUXEMBURGER NATURFREUNDE. *Luxembourg.*

SOCIÉTÉ DES NATURALISTES DE LA NOUVELLE RUSSIE. *See* NOVOROSSĬĬSKOE OBSHCHESTVO ESTESTVOISPYTATELEĬ, ODESSA.

SOCIÉTÉ DES NATURALISTES PARISIENS, PARIS.
1904–19. Bulletin.

SOCIÉTÉ DES NATURALISTES À ST. PÉTERSBOURG. *See* LENINGRADSKOE OBSHCHESTVO ESTESTVOISPYTATELEĬ.

SOCIÉTÉ DES NATURALISTES DE SARATOV. *See* SARATOVSKOE OBSHCHESTVO ESTESTVOISPYTATELEĬ I LÍÛBITELEĬ ESTESTVOZNANĬÍÂ.

SOCIÉTÉ DES NATURALISTES À L'UNIVERSITÉ IMPÉRIALE DE KHARKOV. *See* KHARKOF UNIVERSITET.

SOCIÉTÉ NEUCHÂTELOISE DES SCIENCES NATURELLES. *Neuchâtel.*
1843–*date.* Bulletin.
1835–1914. Mémoires.

SOCIÉTÉ D'OCÉANOGRAPHIE DE FRANCE. 1921–*date.* *Paris.*

SOCIÉTÉ D'ORNITHOLOGIE DU CENTRE DE LA BELGIQUE. *See* GERFAUT.

SOCIÉTÉ ORNITHOLOGIQUE DE FRANCE. *See* REVUE FRANÇAISE D'ORNITHOLOGIE SCIENTIFIQUE ET PRATIQUE.

SOCIÉTÉ ORNITHOLOGIQUE SUISSE. *Geneva.*
1865–70. Bulletin.

SOCIÉTÉ PALÉONTOLOGIQUE DE BELGIQUE. *Antwerp.*
1858–62. Bulletin.

SOCIÉTÉ PALÉONTOLOGIQUE DE RUSSIE. *See* RUSSKOE PALEONTOLOGICHESKOE OBSHCHESTVO, PETROGRAD.

SOCIÉTÉ PALÉONTOLOGIQUE SUISSE. *See* SCHWEIZERISCHE PALEONTOLOGISCHE GESELLSCHAFT.

SOCIÉTÉ PORTUGAISE DES SCIENCES NATURELLES. *See* SOCIEDADE PORTUGUÊSA DE SCIÊNCIAS NATURAES, LISBON.

SOCIÉTÉ DE PHYSIQUE ET D'HISTOIRE NATURELLE DE GENÈVE.
1884–*date.* Compte Rendu.
1821–*date.* Mémoires.

SOCIÉTÉ PROTECTRICE DES ANIMAUX. *Paris.*
1855–1900? Bulletin.
? –1854. Recueil des Rapportes et Mémoires.

SOCIÉTÉ ROYALE DES ARTS ET DES SCIENCES DE MAURICE.
1829–46. As Société d'Histoire Naturelle de l'Île Maurice.
1842–6. Procès-Verbaux.
1830–42. Rapport Annuel.
1848–52. Transactions.
1860–86. Transactions. New series.

SOCIÉTÉ ROYALE HONGROISE DES SCIENCES NATURELLES, BUDAPEST. *See* MAGYAR TERMÉSZETTUDOMÁNYI TÁRSULAT, BUDAPEST.

SOCIÉTÉ ROYALE LINNÉENNE DE BRUXELLES.
1872–1906. Bulletin.

SOCIÉTÉ ROYALE DE ZOOLOGIE, D'HORTICULTURE ET D'AGRÉMENT, BRUXELLES.
1874–6. Rapports.

SOCIÉTÉ ROYALE ZOOLOGIQUE DE BELGIQUE. *Brussels.*
1863–*date.* Annales.
—— Bulletin des Séances. *See* ANNALES.
—— Mémoires. *See* ANNALES.
1872–98. Procès-Verbaux.

SOCIÉTÉ DES SCIENCES HISTORIQUES ET NATURELLES DE L'YONNE, AUXERRE.
1847–*date.* Bulletin.

SOCIÉTÉ DES SCIENCES DE NANCY.
1868–71. Bulletin. As Bulletin de la Société des Sciences Naturelles de Strasbourg.

[**SOCIÉTÉ DES SCIENCES DE NANCY** (*contd.*)]

1873–99. Bulletin. Series 2.

1900–14. Bulletin. Series 3.

1920–*date*. Bulletin. Series 4.

1830–70. Mémoires de la Société d'Histoire Naturelle de Strasbourg.

SOCIÉTÉ DES SCIENCES NATURELLES ET D'ARCHÉOLOGIE DE L'AIN, BOURG-EN-BRESSE.

1894–*date*. Bulletin.

SOCIÉTÉ DES SCIENCES NATURELLES ET ARCHÉOLOGIQUES DE LA CREUSE. *Guéret.*

1847–*date*. Mémoires.

SOCIÉTÉ DES SCIENCES NATURELLES ET DES ARTS DE SAINT-ÉTIENNE. *Loire.*

1847–56. Bulletin.

SOCIÉTÉ DES SCIENCES NATURELLES DE BRUGES.

1839–42. Annales.

SOCIÉTÉ DES SCIENCES NATURELLES . . . DE CANNES ET DE L'ARRONDISSEMENT DE GRASSE.

1868–79. Mémoires.

SOCIÉTÉ DES SCIENCES NATURELLES DE LA CHARENTE-INFÉRIEURE. *La Rochelle.*

1851–*date*. Annales.

SOCIÉTÉ DES SCIENCES NATURELLES DE CHERBOURG. *See* SOCIÉTÉ NATIONALE DES SCIENCES NATURELLES ET MATHÉMATIQUES DE CHERBOURG.

SOCIÉTÉ DES SCIENCES NATURELLES ET D'ENSEIGNEMENT POPULAIRE DE TARARE.

1896–*date*. Bulletin.

SOCIÉTÉ DES SCIENCES NATURELLES DE FRANCE.

1835. Bulletin.

SOCIÉTÉ DES SCIENCES NATURELLES DU GRAND-DUCHÉ DE LUXEMBOURG. *See* INSTITUT GRAND-DUCAL DE LUXEMBOURG; SECTION DES SCIENCES NATURELLES.

SOCIÉTÉ DES SCIENCES NATURELLES DE LA HAUTE-MARNE.

1903–12. Bulletin. (All pub.) *Langres.*

SOCIÉTÉ DES SCIENCES NATURELLES ET HISTORIQUES DE L'ARDÈCHE, PRIVAS.

1861–77. Bulletin.

SOCIÉTÉ DES SCIENCES NATURELLES DU MAROC. *Rabat.*

1921–*date*. Bulletin.

1921–*date*. Mémoires.

1922? Variétés Scientifiques.

SOCIÉTÉ DES SCIENCES NATURELLES ET MEDICALES DE SEINE-ET-OISE. *See* SOCIÉTÉ DES SCIENCES NATURELLES DE SEINE-ET-OISE.

SOCIÉTÉ DES SCIENCES NATURELLES DE NEUCHÂTEL. *See* SOCIÉTÉ NEUCHÂTELOISE DES SCIENCES NATURELLES.

SOCIÉTÉ DES SCIENCES NATURELLES DE L'OUEST DE LA FRANCE. *Nantes.*

1891–1900. Bulletin. Series 1.

1901–10. Bulletin. Series 2.

1911–20. Bulletin. Series 3.

1921–*date*. Bulletin. Series 4.

SOCIÉTÉ DES SCIENCES NATURELLES ET PHYSIQUES DE MONTPELLIER.

1887–*date*? Bulletin.

SOCIÉTÉ DES SCIENCES NATURELLES DE SAÔNE-ET-LOIRE. *Châlon-sur-Saône.*

1875–*date*. Bulletin.

1878–90. Mémoires. (All pub.)

SOCIÉTÉ DES SCIENCES NATURELLES DE SEINE-ET-OISE. *Versailles.*

1835–1910. Mémoires.

1919–*date*. Mémoires. New series.

SOCIÉTÉ DES SCIENCES NATURELLES DE STRASBOURG. *See* SOCIÉTÉ DES SCIENCES DE NANCY.

SOCIÉTÉ DES SCIENCES NATURELLES DU SUD-EST. *Grenoble.*

1882–*date*? Bulletin.

SOCIÉTÉ DES SCIENCES PHYSIQUES ET NATURELLES DE BORDEAUX.

1854–75. Mémoires. Series 1.

1876–83. Mémoires. Series 2.

1884–90. Mémoires. Series 3.

1893–5. Mémoires. Series 4.

1896–1901. Mémoires. Series 5.

1901–14. Mémoires. Series 6.

1917–*date*. Mémoires. Series 7.

1894–*date*. Procès-Verbaux.

SOCIÉTÉ DES SCIENCES PHYSIQUES ET NATURELLES DU DÉPARTEMENT D'ILLE-ET-VILAINE, RENNES.

1863–5. Mémoires.

SOCIÉTÉ DES SCIENCES PHYSIQUES ET NATURELLES DE TOULOUSE.

1872–89. Bulletin.

SOCIÉTÉS ORNITHOLOGIQUES DE LA SUISSE ROMANDE. *See* MESSAGER.

SOCIÉTÉ DE STATISTIQUE, DES SCIENCES NATURELLES . . . DE L'ISÈRE. *See* SOCIÉTÉ SCIENTIFIQUE DE L'ISÈRE, GRENOBLE.

SOCIÉTÉ VALAISANNE DES SCIENCES NATURELLES. *See* MURITHIENNE.

SOCIÉTÉ VAUDOISE DES SCIENCES NATURELLES. *Lausanne.*
1842–*date*. Bulletin.

1922–*date*. Mémoires.

SOCIÉTÉ ZOOLOGIQUE D'ACCLIMATATION. *See* SOCIÉTÉ NATIONALE D'ACCLIMATATION DE FRANCE.

SOCIÉTÉ ZOOLOGIQUE DE FRANCE. *Paris.*
1876–*date*. Bulletin.

1900–6. Causeries Scientifiques.

1888–*date*. Mémoires.

SOCIÉTÉ ZOOLOGIQUE DE GENÈVE.
1906–*date*. Bulletin.

SOCIÉTÉ ZOOLOGIQUE SUISSE. *Bern.*
1898. Bulletin.

SOCIETY FOR THE ACCLIMATISATION OF ANIMALS, BIRDS, FISHES, INSECTS AND VEGETABLES, WITHIN THE UNITED KINGDOM. *See* ACCLIMATISATION AND ORNITHOLOGICAL SOCIETY OF LONDON.

SOCIETY OF ALASKAN NATURAL HISTORY AND ETHNOLOGY. *Sitka.*
1889–90. Bulletin.

SOCIETY OF NATURALISTS OF THE EASTERN UNITED STATES. *See* AMERICAN SOCIETY OF NATURALISTS.

SOCIETY FOR THE PROTECTION OF BIRDS. *See* ROYAL SOCIETY FOR THE PROTECTION OF BIRDS.

SÖDERBERG, RUDOLF. **1926.** *See* KOLTHOFF, G. I.

SOKOLOWSKY, ALEXANDER [1866–].
1903. *See* BAUM, HERMANN.

1910. Aus dem Seelenleben höherer Tiere. *8vo. pp. 74. illust.* (Deutsche naturwissenschaftliche Gesellschaft.) *Leipzig.*
A valuable contribution to the psychology and moral characters of the higher animals.

SÖLLER, FRIEDRICH KARL.
1876. Des Wellensittichs zucht und Pflege. *8vo. pp. 45. T. of c.* *Weimar.*
On the care and culture of the smaller parrots, especially of *Melopsittacus undulatus.*

SOLOMIRSKY, D.
1914–15. Europas fåglar och deras bon. Fotografisk bilderatlas. Atlas. Oiseaux d'Europe. Recueil de (environ 600) photographies pour servir d'illustration à l'Ornithologie Européenne de (C.-D.) Degland et (Z.) Gerbe. Avec nomenclature en 6 langues (latin, français, russe, suédois, allemand, anglais). Tome 1–2 et Appendice du Tome 1: Nids d'oiseaux. *folio. pp. 620. 600 reproductions of photos.* *Stockholm.*
This treatise is an unfinished attempt to illustrate the *Ornithologie Européenne* of Degland and Gerbe, the nomenclature being supplied in Latin, French, Russian, Swedish, German, and English. Unfortunately only the first two volumes and an appendix to vol. I (on the nests of the birds) have so far appeared.

SOMEREN, ROBERT ABRAHAM LOGAN VAN and **SOMEREN,** V. G. L. VAN.
1911. Studies of birdlife in Uganda. *4to. pp. 22. 25 pl. T. of c.* *London.*

SOMERSET HILLS BIRD CLUB. *See* ORIOLE. *Bernardsville, N.J.*

SOMERSETSHIRE ARCHAEOLOGICAL AND NATURAL HISTORY SOCIETY. *Taunton.*
1849–*date*. Proceedings.

SOMOW, NIKOLAUS NIK.
1897. Faune ornithologique du gouvernement de Kharkow. In Russian, with French half-title. *4to. pp. 9+680. index.* *Kharkow.*
A comprehensive study of the avifauna observed in a large and important province of Russia. From the Cabanis-Reichenow collection.

SONNENBURG, LUDWIG.
1857. Zoologisch-kritische Bemerkungen zu Aristoteles Thiergeschichte. *4to. pp. 2+27.* *See also* ARISTOTLE, 1857. *Bonn.*

SONNERAT, PIERRE [1749–1814].
1776. Voyage à la Nouvelle Guinée, etc. *4to. pp. xii+206. 120 pl.* *Paris.*
This volume, well known to systematic students, furnishes an early account of Papuasian flora and fauna by a noted traveler and naturalist.

1782. Voyage aux Indes Orientales et à la Chine depuis 1774 jusqu'en 1781, etc. *2 vols. illust.* *Paris.*
A classic record of natural history explorations and discoveries in the Far East, which included explorations in Ceylon, the Philippines, Moluccas, Cape of Good Hope, etc., adding many new species to the list of vertebrata.

SONNINI DE MANONCOURT, CHARLES NICOLAS SIGISBERT [1751–1812].
1800. Travels in upper and lower Egypt, undertaken by order of the government of France; tr. from the French. *4to. pp. 40+730. 27 pl. 1 map.* *London.*
The original French treatise was published in three volumes (2 vols. text, 8vo, and 1 vol. 4to Atlas) in An IX (1800) and is an important source of early information regarding the flora and fauna of Egypt.

1802–5. (An XI–XIII.) Histoire naturelle, générale et particulière des Poissons. Ouvrage faisant suite à l'Histoire naturelle par L. de Buffon. *14 vols. 8vo. 82 col. pl.* *Paris.*
This Buffon 'suite', one of the classic treatises on pisces, includes a volume on whales, the whole wonderfully well illustrated by colored figures.

1810. Voyage aux Îles de Ténériffe, La Trinité, Saint-Thomas, Sainte-Croix et Porto-Ricco . . . 1796–8, etc. *2 vols. 8vo. 1 map.* (Wanting.) *Paris.*
Though Sonnini probably wrote only a part of the natural history text of this report on André Pierre Ledru's well-known expedition to the Canary Islands and the West Indies (including Porto Rico and what are now the U.S.A. Virgin Islands) the above title is generally listed under Sonnini's name.

SON OF THE MARSHES. *See* OWEN (Son of the Marshes).

SORDELLI, FERDINANDO. **1865–71.** *See* BETTONI, EUGENIO.

SØRENSEN, WILLIAM EMIL [1848–1922].
1884. Om Lydorganer hos Fiske; en physiologisk og comparativ-anatomisk Undersøgelse. *8vo. pp. 8+245. pl.* *Kjøbenhavn.*

SORENSON, EDWARD S.

n.d. Spotty, the bower bird and other nature stories, life histories of Australian birds and animals. *12mo. pp. 104. 12 pl. 13 figs. T. of c.* *Melbourne.*

SOUANCÉ, CHARLES DE.

1857. Iconographie des perroquets non figurés dans les publications de Levaillant et de Bourjot Saint-Hilaire, avec la coopération de S. A. le prince Bonaparte et de M. Émile Blanchard. Histoire naturelle des perroquets. *folio. n.p. 48 col. pl. T. of c.* *Paris.*

A most important, systematic, and well-illustrated contribution to the literature of the Parrots. The treatise was issued in 12 *livraisons* and forms a systematic account of the order as a second supplement to Levaillant's *Histoire Naturelle des Perroquets* (pub. 1801–5) and the work of Bourjot-Saint-Hilaire (1837). In the copy in hand the final plate is numbered LXXIX (Coues says LXXIV).

SOULEYET, F. L. A. **1841–52.** *See* EYDOUX, J. F. T.

SOUSA, JOSÉ AUGUSTO DE [–1889].

1869–73. Catalogo das collecções ornithologicas. *Psittaci*—papagaios. *Accipitres*—aves de rapina. [Pigeons and gallinaceous birds also.] *2 pts. 8vo.* Pt. I, *pp. 62.* Pt. II, *pp. 49.* *Lisbõa.*

SOUTH AFRICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

1903–8. Report. Continued as South African Journal of Science.

1905. Science in South Africa: a handbook and review prepared under the auspices of the South African governments and the South African association for the Advancement of Science; ed. by Rev. W. Flint and J. D. F. Gilchrist. *8vo. pp. x+505. col. map. 7 pl. (2 col.). 5 maps. 62 figs. index.* *Cape Town.*

A handbook on scientific work and progress in South Africa, prepared on the occasion of the visit of the British Association to South Africa in 1905.

SOUTH AFRICAN JOURNAL OF NATURAL HISTORY. **1918**–*date.* *Pretoria.*

SOUTH AFRICAN JOURNAL OF SCIENCE. (S.A. Assoc. for the Advancement of Science.)

1903–*date.* *Cape Town.*

SOUTH AFRICAN MUSEUM. *Cape Town.*

1898–*date.* Annals.

1881 ?–*date.* Report.

SOUTH AFRICAN ORNITHOLOGISTS' UNION.

1905–16. Journal (The) of the South African Ornithologists' Union. Published at Pretoria, Transvaal. *8vo.* Edited by a Committee of the Union. Semi-annual. Printed in London. After issue of eleven Volumes and Bulletins ('Popular Bulletins' and 'Bulletin Series'), the Journal was, after dissolution of the S.A.O.U. in 1916, incorporated with the *South African Journal of Natural History.*

This periodical, founded chiefly through the activities of W. L. Sclater, at that time Director of the South African Museum, Cape Town, and continued by the energetic labors of the editorial committee and especially by A. K. Haagner, Director of the Zoological Gardens, Pretoria, contains many important contributions to African ornithology. The first volume opens with a biography of the better-known African ornithologists by W. L. Sclater, followed during the succeeding 11 years by essays that form a most valuable addition to our knowledge of African birds. It is to be regretted that a magazine so ably edited should not have received the support it deserved.

SOUTH AFRICAN QUARTERLY JOURNAL. **1829–35.** *Cape Town.*

SOUTHARD, CHAS. Z.

1928. The Evolution of Trout and Trout Fishing in America. *4to. pp. 254. 9 col. pl.* *New York.*

A complete history of the Trout in America and 'how to catch him'.

SOUTH AUSTRALIAN NATURALIST.

1919–*date.* *Adelaide.*

SOUTH AUSTRALIAN ORNITHOLOGIST, THE. A Magazine of Ornithology.

1914–*date. 8vo.* Parts issued quarterly; some issues more frequently. Vol. I, 1914. Edited by a Committee: F. R. Zeitz, A. M. Morgan, S. A. White, and R. Crompton.

This ably edited magazine counts among its contributors many noted Australian ornithologists. In addition to recording the activities of the South Australian Ornithological Association, of which it is the organ, the periodical deals in a scientific fashion with local avifauna. In addition to the Secretary and Members of Committee, such widely known specialities as G. M. Mathews, Edwin Ashby, J. G. Hastings, A. J. Campbell, and several others figure as contributors.

SOUTH AUSTRALIAN ZOOLOGICAL AND ACCLIMATIZATION SOCIETY. *Adelaide.*

1880–1919? Annual Report.

SOUTH DAKOTA ACADEMY OF SCIENCES.

1916–*date.* Proceedings.

SOUTH EASTERN NATURALIST. (Dover Natural History Society; East Kent Scientific Society. **1890**–*date.* *Canterbury.*

SOUTH EASTERN UNION OF SCIENTIFIC SOCIETIES.

1909. A survey and record of Woolwich and West Kent, containing descriptions and records . . . zoology, etc. *8vo. pp. 8+526. 3 indexes.* *Woolwich.*

SOUTHERN CALIFORNIA ACADEMY OF SCIENCES, LOS ANGELES.

1902–*date.* Bulletin.

'SOUTHERN CROSS'. VOYAGE TO THE ANTARCTIC.

1898. Reports on the Collections.

Inlaid in the library copy are 11 original water-color drawings of seals and two of birds' eggs by Grönvold; also corrected proofs of some of the Seal papers. Of the 53 plates in this section nine are colored.

1902. *See* BRITISH MUSEUM. NATURAL HISTORY. Southern Cross Antarctic Expedition.

SOUTHERN NATURALIST. **1884**?

Nashville, Tenn.

SOUTHERN OOLOGIST. Edited by H. J. Twiggs, Summerville, Augusta, Georgia, U.S. May **1891.** Vol. I, No. 1, *12mo.* (All issued.)

SOUTH LONDON ENTOMOLOGICAL AND NATURAL HISTORY SOCIETY.

1885–*date.* Proceedings.

SOUTHPORT SOCIETY OF NATURAL SCIENCE. *Southport, England.*

1890–*date.* Report.

SOUTHWELL, THOMAS [1831–1909].
1879. Observations of the fauna of Norfolk. *See* LUBBOCK, R.

1890. *See* STEVENSON, HENRY.

1902. *See* BROWNE, *Sir* T.

SOWERBY, ARTHUR DE CARLE [1885–].
1912. *See* CLARK, R. S. and SOWERBY, A. DE C.

1922–3. The naturalist in Manchuria. *3 vols. 4to. illust. pl. maps.* Vol. 1. Travel and exploration. 2. Mammals. 3. Birds. *Tientsin.*

1923. A naturalist's holiday by the sea . . . shoreland life of the Cornish peninsula. *8vo. pp. 11+262. 16 pl. 42 figs. T. of c. London and New York.*

SOWERBY, GEORGE BRETTINGHAM [1812–84].
1857. Popular history of the aquarium of marine and fresh-water animals and plants. *8vo. pp. 16+327. illust.* *London.*

SOWERBY, JAMES [1757–1822].
1804–6. The British miscellany; or, Coloured figures of new, rare, or little known animal subjects . . . of the British Isles. *2 vols. 8vo. pp. vi+137+31. 76 col. pl. index.* *London.*
Twelve parts—the present copy has the covers bound in—only were issued, the first five each containing four plates, and the last seven, eight plates each.

SOWERBY, JAMES DE CARLE [1787–1871]. **1872.** *See* LEAR, E. and SOWERBY, J. DE C.

SPAIN. Comisión permanente de Pesca.
1870. Exploración científica . . . del Ferrol. *8vo. pp. 540. 16 pl.* (Wanting.) *Madrid.*
This department of the Spanish Government has published several similar reports on the fishes of the Spanish dominions, federal and colonial.

SPALLANZANI, LAZARO [1729–99].
1782. Fisica animale e vegetabile—dissertationi del abate, etc. *3 tomi. 12mo. 3 fold. pl.* [O.] *Venezia.*

1787. Œuvres, tomes I–III. Tomes I and II contain the observations on animals. *8vo.* [O.] *Pavia.*
This is a French translation (from the original Italian) by Charles Bonnet.

SPALLANZANI. (Rivista di Scienze Mediche e Naturali.) 1863–93. *Modena, Rome.*

SPARRMAN, ANDERS [1748–1820].
1784. Reise nach dem Vorgebirge der guten Hoffnung, etc. Schwedischen frey übersetzt von C. H. Groskurd; hrsg. und mit einer Vorrede begleitet von Georg Forster. *8vo. pp. 30+626. pl. map.* *Berlin.*
This German translation of the Dutch *editio princeps* (1783) must be very rare; unlike the English and French translations it is not listed in the *Cat. Br. Mus. (Nat. Hist.).* It is a treatise of much zoological importance.

1786–9. Museum Carlsonianum, in quo novas et selectas aves, coloribus ad vivum brevique descriptione illustratas. *4 vols. 4to. 100 col. pl. one leaf of letterpress for each pl.* *Holmiae.*
A very important and rare work, published in four fascicles, with 25 colored plates in each, and of extreme value to the student. It furnishes descriptions, using the binomial classification, of the numerous specimens in the famous Swedish museum of Gustavus Carlson. This collection was studied and partly described by C. J. Sundevall who identified most of the species, many of them new to science.

SPARROW, W. S.
1923. Angling in British Art through 5 centuries. *London.*

SPECHT, F. **1883.** *See* VOGT, C. and SPECHT, F., 1883.

SPENCER, BALDWIN. **1896.** *See* HORN, W. A., Report on the Horn Scientific Expedition.

SPENCER, HERBERT [1820–1903].
1864–7. The Principles of Biology. *2 vols. 8vo.* [O.] *London.*
A masterly and philosophic exposition of an abstruse subject; no food for amateur students.

SPITSBERGEN [33] **PAPERS.**
1925. Scientific results of the first Oxford university expedition to Spitsbergen (1921). *8vo. pp. xi+473. 17 pl. 114 figs. append.* *Oxford.*

SPITTEL, RICHARD LIONEL [1881–].
1924. Wild Ceylon. *8vo. pp. (16)+260. 53 pl. 1 map.* *Colombo.*
There are many references to animals, especially to birds, throughout the book, such as drongas, lapwings, owls, pigeons, bulbuls, bee-catchers, and cuckoos.

SPIX, JOHANN BAPTIST VON [1781–1826].
1811. Geschichte . . . aller Systeme in der Zoologie, etc. *2 vols. 8vo. pp. 26+710.* *Nürnberg.*
This scholarly treatise on systematic zoology since the days of Aristotle to the beginning of the nineteenth century should find a place in every naturalist's library.

1815. Cephalogenesis; sive, Capitis ossei structura, formatio et significatio per omnes animalium classes, familias, genera ac aetates digesta. *folio. pp. [6]+72. 9 pl.* Each plate is accompanied by an outline key. *Monachii.*

1823. Simiarum et vespertilionum Brasiliensium species novae; ou, Histoire naturelle des espèces nouvelles de singes et de chauves-souris observées et recueillies pendant le voyage dans l'intérieur du Brésil dans les années 1817–20. *folio. pp. 16+72. 38 col. pl.* *Monachii.*

****** and MARTIUS,** C. F. P. VON
1823–31. Reise in Brasilien in den jahren 1817 bis 1820. *4 vols. 3 (pts.) vols. 4to.* Text. *1 (pt.) vol. folio.* Atlas. *München.*
A noted expedition, with accounts of many new floral and faunal species. The original report has been several times translated and republished.

****** and MARTIUS,** C. F. P. VON.
1824. Travels in Brazil in the years 1817–20. [Tr. from the German by H. E. Lloyd.] *2 vols. 8vo.* Vol. I, *pp. 24+327. 4 pl.* Vol. II, *pp. 8+298. 5 pl. T. of c.* *London.*

1824. Animalia nova; sive, Species novae Testudinum et Ranarum, quas in itinere per Brasiliam annis 1817–20 collegit et descripsit. *folio. pp. 4+53. 22 pl.* *Monachii.*
This first printing of an important tractate is quite rare. There were several subsequent editions published.

1824. Serpentum Brasiliensium species novae; ou, Histoire naturelle des espèces nouvelles de serpens, recueillies et observées pendant le voyage dans l'intérieur du Brésil dans les années 1817–20; écrite d'après les notes du voyageur par J. G. Wagler. *folio. pp. 8+75. 28 col. pl.* *Monachii.*

[**SPIX,** J. B. VON (*contd.*)]

1824–5. Avium species novae, quas in itinere per Braziliam annis 1817–20, etc. *2 vols. folio.* Vol. I, 1824, *pp.* [*10*]+*90*+*47. 104 col. pl.* Vol. II, 1825, *pp.* [*4*]+*85. 118 col. pl.*

A classic and fundamental treatise on the birds of Brazil, with a description and portrayal of many new species. C. E. Hellmayer has carefully examined most of the specimens obtained during several expeditions to South America, upon which this monograph is based. See his *Revision der Spix'schen Typen brasilianischer Vögel* in the *Abh. d. K. Bayer Akad. Wissenschaft.*, May 20, 1906. The copy in hand is from the Godman Library and has the full number of plates. A second copy in the library is a variant of this, having several plates quite differently colored.

1825. Animalia nova; sive, Species novae Lacertarum, quas in itinere per Brasiliam annis 1817–20 collegit et descripsit. *folio. pp. 2*+*26. 28 pl.* *Monachii.*

****, **AGASSIZ,** LOUIS, and **others.**

1829–31. Selecta genera et species piscium . . . Brasiliam annis 1817–20. *folio. pp. 30*+*138. 95 col. pl. portr.* *Monachii.*

Issued in 2 parts: part 1, *pp. 82, 48 col. pl.*, 1829; part 2, the remainder in 1831.

**** and **MARTIUS,** C. F. P. VON.

1830–4. Delectus animalium articulatorum, quae in itinere per Brasilian annis 1817–20; digessit, descripsit, pingenda curavit [J. A.] M. Perty, praefatus est et edidit C. F. P. von Martius. *folio. pp. 55*+*224. 40 col. pl.* *Monachii.*

SPRATT, *Mrs.* G.

1851. The language of birds, comprising poetic and prose illustrations of the most favourite cage birds. With highly coloured plates. *16mo. pp. vii* +*342. 12 pl.* (*col.*). *T. of c.* *London.*

An extraordinary book. The plates are certainly 'highly coloured', the Wren being depicted with a blue head, a long blue tail, and a black throat!!

SPRINGFIELD, MASS. Report of the Allen Bird Club.

1912–15 and continuation. Miss E. M. Wilcox, 148 Carew St., Springfield, Mass., Secy.-Treas. Annual Report. Yearly volume. *8vo.* *Springfield, Mass.*

These periodical reports show the Allen Club to be an active and effective organization for the cultivation of Bird Study and Protection among its members in and about Springfield.

SPRINGFIELD MUSEUM OF NATURAL HISTORY. *Springfield, Mass.*

1904–*date.* Bulletin.

1895–*date.* Report.

ST. *See* SAINT.

STABILI, FRANCESCO DEGLI, called CECCO D'ASCOLI [1257–1327].

1516. Lo illustro poeta Cecho, etc. In verse. Four books, of which Book III is on minerals and animals. *4to. illust.* *Venezia.*

The author, professor of mathematics at Bologna and a man of great learning, in this poem, known as the 'Acerba', dared to express an opinion of Dante not consonant with the teachings of the dominant church, so, after a trial for 'impiety', he was, for the benefit of his soul, burned at the stake. Osler says that this work was among the most popular of the medieval bestiaries. [O. 5469.]

STAHL, AUGUSTIN.

1887. Beitrag zur Vogelfauna von Portorico. *8vo. pp. 6.*

Brief notes, systematically arranged, on some birds of Porto Rico. From the Cabanis-Reichenow collection.

STAMPFLI, F. X. **1884–6.** *See* BÜTTIKOFER, JOHANN.

STANDARD NATURAL HISTORY. *See* KINGSLEY, J. S.

STANFORD UNIVERSITY, CALIFORNIA.

1895. Publications. Geology and Paleontology.

1908. University Series. No. 1, 1908, and continuation.

1912. The effect of a vegetable diet . . . on the Albino Rat. J. R. Slonaker, *pp. 36. illust.*
1913. E. C. Starke, Fishes of the Stanford University Expedition to Brazil, *pp. 75. illust.*
The *University Series* is mostly taken up with subjects outside the realm of vertebrate zoology.

1920–*date.* Biological Sciences.

****. **Hopkins Seaside Laboratory.**

1895–1904. Contributions to biology. *8 vols.* Nos. 1–32. *8vo. illust. pl.* (All pub.) *Palo Alto, California.*

STANLEY, EDWARD (*Bp. of Norwich*) [1779–1849].

1835. A familiar history of birds; their nature, habits and instincts. Two volumes, with engravings. *2 vols. 16mo.* Vol. I, *pp. vii*+*254. 7 pl. 43 figs.* Vol. II, *pp. vi*+*279. 9 pl. 30 figs. index.* *London.*

Although untrustworthy as a modern treatise on bird life, this popular work has passed through many editions, all of them in the E.S.W. Library. The present copy is of the first edition, the sixth appearing in 1854.

STANLEY, EDWARD SMITH, *Earl of Derby* [1775–1851].

1850. Gleanings from the Menagerie . . . Knowsley Hall. *See* GRAY, J. E.

STANNARD, HENRY.

1873. Outdoor common birds. *8vo. pp. 6*+*215. front. 55 figs.* (*birds*). *55 figs.* (*eggs*). *T. of c.* *London.*

STANNIUS, FRIEDRICH HERMANN [1808–83].

1856. Zootomie der Amphibia.

One of the few early works on the anatomy of amphibians.

STANSBURY, HOWARD. **1852.** *See* BAIRD, S. F.

STARK, ARTHUR COWELL [–1899] and **SCLATER,** W. L.

1900–1. The Birds of South Africa. *4 vols. 8vo.* *See* SCLATER, W. L.

STARK, JOHN.

1828. Elements of natural history. *2 vols. 8vo. pl. illust. text.* *Edinburgh.*

STARKE, E. C. **1913.** *See* STANFORD UNIVERSITY, CALIFORNIA.

STATEN ISLAND INSTITUTE OF ARTS AND SCIENCES.

1883–1905. As Natural Science Association of Staten Island.

1905–18. As Staten Island Association of Arts and Sciences.

1908–14. Museum Bulletin. Series 1.

1914–18. Museum Bulletin. Series 2.

1918–*date*. Museum Bulletin. Series 3.

1883–1905. Proceedings. Series 1.

1905–18. Proceedings. Series 2.

1918–*date*. Proceedings. Series 3.

STATHAM, JOHN CHARLES BARON [1872–].
1924. With my wife across Africa by canoe and caravan. *8vo. pp. 323. 32 pl. 3 maps. bibliogr. 4 append.* *London.*

There are many descriptions of animals. Appendix II has *Notes on Water and Game birds.*

STATION MARITIME, CETTE. *See* MONTPELLIER UNIVERSITÉ. Institut de Zoologie Maritime.

STATION MARITIME DE WIMEREUX. *See* WIMEREUX, STATION ZOOLOGIQUE. *Lille.*

STATION ZOOLOGIQUE DE CETTE. *See* NANCY UNIVERSITÉ.

STAVANGER MUSEUM. *Stavanger, Norway.*
1890–*date*. Aarshefte.

STEAD, DAVID G.
1906. Fishes of Australia; a popular and systematic guide, etc. *8vo. pp. 12+278. 10 pl. text-figs.* *Sydney.*

Written for the N.S.W. Dept. of Fisheries by an acknowledged authority on the subject.

1908. The edible fishes of New South Wales. *8vo. pp. 123. 81 pl.* *Sydney.*

STEARNS, WINFRID ALDEN [1852–].
1880. List of Birds . . . of Fishkill-on-Hudson, N.Y.

******** and **COUES,** ELLIOTT.
1881–3. New England bird life: being a manual of New England ornithology. *2 vols. 8vo.* Vol. 1, *pp. 324. 56 figs. 2 indexes.* Vol. 2, *pp. 409. 88 figs. 2 indexes.* *Boston.*

The original manuscript of this treatise was written by Stearns at the suggestion of Coues who afterwards altered and amended it at the request of Stearns, thus becoming equally responsible for the accuracy and completeness of the work.

1881–94. New England bird life, being a manual of ornithology. 4th ed. *2 vols. 8vo.* Vol. 1, *pp. 328. 56 figs. append. 2 indexes.* Vol. 2, *pp. 409. 88 figs. 2 indexes.* *Boston.*

1883. Notes on the natural history of Labrador. *8vo. pp. 74. 15 figs.* *New Haven, Conn.*

Author's revised reprint from *Proc. U.S. Nat. Museum,* vol. 6. The notes furnish an annotated list of birds (112 species) collected during a stay of twelve months on the coast in 1880–2.

1890. Bird life in Labrador. *8vo. pp. 65.* *New York.*

Reprinted from the *American Field,* 1890.

STEBBING, EDWARD PERCY [1870–].
1908. A manual of elementary forest zoology for India. *8vo. pp. 40+230. 118 pl. index.* *Calcutta.*

STEDMAN, JOHN GABRIEL [1744–97].
1813. Narrative, of a five years' expedition, against the revolted negroes of Surinam, in Guiana . . . describing Quadrupeds, Birds, Fishes, Reptiles, etc. *2 vols.* Vol. I, *pp. 18+423. 38 pl. 3 maps. index.* Vol. II, *pp. 9+419+(5). 38 pl. 2 maps. index.* *London.*

There are several references to birds in both volumes, with descriptions and eight plates of some of the more notable species. The present copy is from the library of Canon Tristram.

STEELE, ROBERT. **1893.** *See* BARTHOLOMAEUS ANGLICUS.

STEENSTRUP, JOHANNES JAPETUS SMITH [1813–97].
1842. Om Forplantning og Udvikling gjennem vexlende Generationsrækker, en særegen Form for Opfostringen i de lavere Dyreklasser. *8vo. pp. 4+76. pl.* *Kjöbenhavn.*

The very rare Danish original of a well-known contribution to the philosophy of animal and floral descent.

1845. On the alternation of generations; or, The propagation and development of animals through alternate generations. Tr. from the German version of C. H. Lorenzen, by George Busk. *8vo. pp. 7+132. 3 pl.* *London.*

One of the Ray Society's publications.

[**1855**]. Et Bidrag til Geirfuglens, Alca impennis Lin., Naturhistorie, og særligt til Kundskaben om dens tidligere Udbredningskreds. *8vo. pp. 83. map.* *Kjöbenhavn.*

Author's reprint. Contains the complete history of the Garefowl or Great Auk.

STEERE, J. B.
1880. A list of the mammals and birds [111 species] of Ann Arbor and vicinity. *8vo. pp. 8.* *Ann Arbor, Mich.*

1890. A list of the birds [367] and mammals collected by the Steere expedition to the Philippines, with localities, and with brief preliminary descriptions of supposed new [52] species. *8vo. pp. 39.* *Ann Arbor, Mich.*

STEIERMARK, VEREIN FÜR. *See* MITTHEILUNG DES NATURWISSENSCH. **1888–1920.**

STEINDACHNER, FRANZ.
1867. Reise der Osterreichischen Fregatte Novara um die Erde in den Jahren 1857–9. Zoologischer Theil. Reptilien. Erster Band. *8vo. pp. 98. 3 pls. index.* (Wanting.) *Wien.*

1870. Herpetologische Notizen. *8vo. pp. 25. 8 pl.* *Wien.*

Author's reprint.

1876. Die Schlangen und Eidechsen der Galapagos-Inseln. *8vo. pp. 31. 7 pl.* *Wien.*

Author's reprint.

1886. *See* VIENNA. K. ACAD. D. WISSENSCH.

1891. Ueber die Reptilien und Batrachien der westlichen und östlichen Gruppe der canarischen Inseln. *pp. 20.* *Wien.*

Author's reprint.

1900. Bericht über die Herpetologischen Aufsammlungen. Expedition S. M. Schiff 'Pola' in das Rothe Meer nördliche und südliche Hälfte. 1895/6 und 1897/8. (*Zoologische Ergebnisse,* xvii.) *Wien.*

STEINMANN, JOHANN HEINRICH CONRAD GOTTFRIED GUSTAV [1856–].

1903. Einführung in die paläontologie. 2nd ed. *8vo. pp. 10+466. illust.* *Leipzig.*

1908. Die geologischen grundlagen der abstammungslehre. *8vo. pp. 8+284. illust.* *Leipzig.*

STEJNEGER, LEONHARD HESS [1851–].

1885. Results of ornithological explorations in the Commander Islands and Kamtschatka. *8vo. pp. 382. 8 col. pl.* *Washington.*

A separately issued and valuable contribution to North American arctic ornithology, over 400 species being described or noticed. In most instances a full synonymy, and distributional account, with the native and Russian names, are given.

1885. Birds: Standard Natural History, Boston.

This well-known naturalist's contribution to the volumes of a popular work. *See* KINGSLEY, J. S., *ed.*

1886. On Turdus Alpestris and Turdus Torquatus, two distinct species of European thrushes. *8vo. pp. 365–73.* *Washington.*

The present copy from Canon Tristram's library. Author's reprint from *Proc. U.S. Nat. Mus.*, 1886.

1886. On a collection of birds made by M. Namiye in the Liu Kiu Islands, Japan, with descriptions of new species. *8vo. pp. 634–51.* *Washington.*

Author's excerpt from *Proc. U.S. Nat. Mus.*, 1886; the copy in hand from Canon Tristram's library, with bookplate.

1886. Review of Japanese birds. I. The Woodpeckers. *8vo. pp. 99–124. 12 pl. (11 col.). n.p.*

This first of a series of papers on Japanese birds treats of ten species and one subspecies of Woodpeckers, two of the former being new to science. The present copy of this tractate is from the Tristram Library and contains a letter from Pierre Louis Jouy to Canon Tristram, dated April 28, 1887. Author's reprint from *Proc. U.S. Nat. Mus.*, vol. viii.

1893. The Death Valley expedition. *See* DEARBORN, N.

1898–9. *See* UNITED STATES. FISHERY REPORTS.

1903–10. *See* PRINCETON, 1904–12.

1907. Herpetology of Japan and adjacent territory. *8vo. pp. 20+577. 35 pl. 409 figs.* *Washington.*

Author's separate. *Bulletin 58, U.S. National Mus.* The chief authority on the subject to date.

******** and **BARBOUR,** THOMAS.

1917. A Check List of North American Amphibians and Reptiles. *8vo. pp. 4+125.* *Washington.*

A second edition of this admirable catalogue was published in 1922.

STEMPELL, WALTER [1869–].

1925–*date.* Zoologie im Grundriss. *4to. illust.* *Berlin.*

An introduction to general zoology now (1930) being issued in parts; a valuable, up-to-date book for the student.

STEMPELMANN, HUGO and **SCHULZ,** FEDERICO.

1890. Enumeración de las aves de la provincia de Córdoba (Repùblica Argentina). *8vo. pp. 18.* *Buenos Aires.*

STENBECK, THOR.

1891. Einige Worte über die Theorie des Herrn. Prof. Dr. Blix vom Segeln oder Kreisen der Vögel. *8vo. pp. 20. illust.* *Stockholm.*

STENHOUSE, ERNEST.

1904. An introduction to nature-study. *12mo. pp. x+422. 236 figs. index.* *London.*

STEP, EDWARD [1855–].

1921. Animal life of the British Isles, a pocket guide to the mammals, reptiles and batrachians. *12mo. pp. 6+180. 111 pl. (48 col.). index.* *London.*

STEPHENS, JAMES FRANCIS [1792–1853].

1800–26. General zoology. *See* SHAW, G.

STEPHENSON, J. **1928.** *See* AL-MUSTAUFI.

STERLAND, W. J.

1869. The birds of Sherwood forest. *8vo. pp. ix+244. 4 pl. (3 col.). index.* *London*

******** and **WHITAKER,** J.

1879. Descriptive list of the birds [238 species] of Nottinghamshire. *8vo. pp. 71.* *Mansfield.*

STERNBERG, H. F.

1909. Life of a Fossil Hunter. *8vo. illust.* *New York.*

STERNDALE, ROBERT ARMITAGE [1839–1902].

1884. Natural history of the mammalia of India and Ceylon. *12mo. pp. 32+540. col. pl. 170 text-figs.* *Calcutta.*

A valuable contribution to the systematic study of Far Eastern Zoology.

STERNFELD, R.

1910–30. *See* ADOLF FRIEDRICH OF MECKLENBURG.

1913. Die Reptilien und Amphibien Mitteleuropas. *8vo. pp. 82. 30 col. pl. text-figs. Leipzig.*

STETTIN.

1877–1911. *See* ZEITSCHRIFT FÜR PRAKTISCHE GEFLÜGELZUCHT UND ORNITHOLOGIE.

1919–30. Abhandlungen und Berichte der Pommerschen Naturforsch. Gesellschaft.

STETTNER, TH.

1924. Mittelfränkische Naturforscher von 1720–1820. *8vo.*

STEVENSON, FRED. J. *See* TIMINS, DOUGLAS, **1929.**

STEVENSON, HENRY [1833–88] and **SOUTHWELL,** THOMAS.

1866–90. The birds of Norfolk. *3 vols. 8vo.* Vol. 1, *pp. lxxii+445. 2 pl. (col.). index.* Vol. 2, *pp. x+449. 3 pl. index.* Vol. 3, *pp. xiii+432. 4 pl. (col.). index.* *London.*

1879. Memoir of . . . R. Lubbock. *See* LUBBOCK, R.

1880. On the abundance of pomatorhine and smaller skuas on the Norfolk coast in October and November, 1879. *8vo. pp. 24.*

Repaged excerpt (*Trans. Norfolk and Norwich Naturalists' Soc.*, 1880).

STEVENSON, O. J. **1906.** *See* SILCOX, SIDNEY S.

STEVENSON, SARA YORKE.

1894. The feather and the wing in early mythology. *8vo. pp. 40. 3 pl.* *Philadelphia?*

STEVENSON-HAMILTON, J.
1929. The Low-Veld: its wild Life and its People. With Foreword by Lt.-Gen. J. C. Smuts. *8vo. pp. 288. 16 pl. index.* *London.*
An admirable scientific and popular description (the result of 25 years study) of the wild life in the lowest zone of the Transvaal. Included is an account of the Kruger National Park—a reserve that protects the flora and fauna of Southern Africa. The appendix gives a list (both systematic and vernacular) of the animal and plant life of the region.

STEWART, CHARLES [*fl.* 1787–1817].
1801–2. Elements of natural history, being an introduction to the Systema naturae of Linnaeus. *2 vols. 8vo.* Vol. I, *pp. iv+408. 6 pl. bibliogr. glossary. index.* Vol. II, *pp. iv+491. 6 pl. bibliogr. glossary. index.* *London.*
Published anonymously, and very rare. This work is divided up into six classes, (I) Mammalia, (II) Birds, (III) Amphibia, (IV) Fishes, (V) Insects, and (VI) Vermes. The present copy, from the library of Major Mullens, has a note that a second edition, with considerable additions, was published in 1817, with the author's name attached.
1817. Elements of the natural history of the animal kingdom. *2 vols. 8vo.* Vol. I, *pp. vi+446. 6 pl. bibliogr. index.* Vol. II, *pp. 511. 6 pl. bibliogr. glossary. index.* *Edinburgh.*
The second edition, with considerable additions, and with the author's name attached, this not appearing in the first edition.

STEWART, H. E.
1897. The birds of our [British] country. *12mo. pp. viii+397. front. 145 figs. index.* *London.*

STEYER, KARL.
n.d. Die Natur am Meerestrande. *8vo. pp. 88. illust.* *Leipzig.*

STIEDA, LUDWIG [1837–].
1886. Karl Ernst von Baer. Eine biographische Skizze. 2nd ed. *8vo. pp. 12+301. portr.* *Braunschweig.*

STIGAND, CHAUNCEY HUGH [1877–1919].
1923. Equatoria; the Lado [Sudan] Enclave. *8vo. pp. lv+253. 5 maps. 7 figs. append. bibliogr. index.* *London.*

STILES, CHARLES WANDELL [1867–].
1898–9. *See* UNITED STATES. FISHERY REPORTS.
1912. Index-Catalogue of Veterinary Zoology. *8vo.* [O. 7351.] *Washington.*

STILL, JOHN.
1930. The Jungle Tide. *8vo. pp. 8+254. illust.* *Edinburgh.*
A charming series of chapters, mainly on the natural history of Ceylon where the author held an official position for many years.

STILLINGFLEET, BENJ. [1702–71].
1762. Miscellaneous Tracts relating to Natural History, etc. 2nd ed. *8vo.* [O.] *London.*
The author was an early supporter of Linnaeus. This work, introducing his *Systema* for the first time to English readers, went through four editions.

STILLMAN, JACOB DAVID BABCOCK [1826–].
1882. The horse in motion as shown by instantaneous photography, with a study on animal mechanics. *folio. pp. 8+127. 107 pl. (some col.).* *Boston.*

STIRLING NATURAL HISTORY AND ARCHAEOLOGICAL SOCIETY, STIRLING, SCOTLAND.
1878–*date.* No issue 1914–18.

STOCK, CHESTER and **MERRIAM,** JOHN C.
1925. [Vertebrate] Paleontology of California and Oregon. *8vo. pp. 8+92. 10 pl. 54 text-figs.* *Washington.*
1931. The Felidae of Rancho La Brea. *4to.* *Washington.*

STOCKHOLM. Biologiska Föreningen.
1888–92. Förhandlingar. Verhandlungen des Biologischen Vereins in Stockholm. Vols. 1–4. *4to. illust.* (All pub.)

STOCKHOLM. K. Svenska Vetenskaps-Akademien. (Founded 1739.)
1739–1930. Handlingar. 4 series.
1905–30. Arkiv för Zoologi.
1907. Carl von Linnés betydelse såsom naturforskare och lakare. Skildringar utgifna af Kungl. Vetenskapsakademien i anledning af tvåhundraårsdagen af Linnés födelse. *5 vols. 4to. pl.* *Uppsala.*

STOCKHOLM. HOGSKOLAN. Zootomiska Institutet.
1884–1915. Arbeten. New series, **1919–30.**

STODDARD, H. L.
1931. The Bobwhite Quail. *8vo. pp. 30+559. illust.* *London.*

STOLICZKA, FERDINAND [1838–74] and **SHARPE,** R. BOWDLER.
1891. Scientific results of the second Yarkand mission. Aves, by R. Bowdler Sharpe. *folio. pp. 18+153. 24 col. pl. append.* *London.*
Dr. Stoliczka unfortunately perished on the Mission journey in 1874. The report on his ornithological collections was first prepared by Allan Hume, the MSS. of which, however, was stolen by a dishonest servant and sold for waste paper, during the rebuilding of a portion of Hume's museum at Simla. The collections were then brought over to England by Dr. Sharpe with the rest of the Hume collection, and from these, and other sources, the present monograph was prepared. The copy in hand is a presentation from the Secretary of State in Council of India.

STÖLKER, CARL.
1876. Die Alpenvögel der Schweiz. *folio. photos. in 2 portfolios.* *St. Fiden bei St. Gallen.*

STONE, ANDREW JACKSON [1859–].
1902. The Moose: where it lives and how it lives. The Deer Family. *See* ROOSEVELT, THEODORE.

STONE, WITMER [1866–].
1894. The birds of eastern Pennsylvania, etc. *8vo. pp. vii+185. portr. 2 maps. 2 figs. bibliogr. addend. index.* *Philadelphia.*
An annotated list of 352 species of birds inhabiting the region, with notes on habits, distribution, etc.
1895. Check-list of North American birds. 2nd and revised ed. *See* AM. ORNITHOLOGISTS' UNION.
1900. Report on the Birds and Mammals . . . the McIlhenny Expedition to Pt. Barrow, Alaska. *pp. 46.* *Philadelphia.*
Although published in the *Proc. of the Phila. Acad. of Nat. Sciences*, 1900, this important title also appeared in an author's edition.

**** and **CRAM,** W. E.
1902. American Animals. *New York.*
A reliable, popular treatment of the subject. The Blacker Library has the five printings of this title noted in this *Catalogue.*

[**STONE,** W. (*contd.*)]

**** and **CRAM,** W. E.

1903. American Animals. A Popular Guide to the Mammals of North America, North of Mexico, with intimate Biographies of the more familiar species. *8vo. col. illust. text-figs.* *London.*

**** and **CRAM,** W. E.

1904. American Animals: the Mammals of North America. *8vo. col. pl.* *New York.*

1908. The code of nomenclature adopted by the American Ornithologists' Union. *See* AMERICAN ORNITHOLOGISTS' UNION.

1908. The mammals of New Jersey. *8vo. pp. 211. 9 pl.* *Trenton, N.J.*

Author's excerpt from the *Annual Report of the New Jersey State Museum*, 1907.

**** and **FOWLER,** HENRY W.

1909. The Annual Report [1908] of the New Jersey State Museum . . . with a report of the Birds . . . New Jersey Fishes, Amphibians and Reptiles. *8vo. pp. 432. front. 84 pl. index.* *Trenton, N.J.*

Part I of this report contains the general annual report for 1908, and Part III, the notes on fishes, amphibians, and reptiles by Henry W. Fowler, that of Part II being devoted to a descriptive catalogue of the birds of New Jersey. Concise descriptions of each avian species are followed by notes on distribution, local occurrence, song, habits, etc., with a Key under family headings for the identification of species.

1910. Check-list of North American birds. 3rd ed. (revised). *See* AMERICAN ORNITHOLOGISTS' UNION.

1912. The phylogenetic value of color characters in birds. Author's reprint. *Journal of Natural Sciences of Philadelphia. 4to. pp. 5. 1 col. pl. 10 text-figs.* *Philadelphia.*

Written to emphasize the need of a more thorough study of the coloration of birds, especially of the juvenal plumages of brilliant tropical birds.

**** and **CRAM,** W. E.

1918. American Animals. A Guide to the Mammals of North America, North of Mexico, with Intimate Biographies, etc. *4to. pp. 318. col. pl. illust. text.* *New York.*

**** and **CRAM,** W. E.

1922. American animals; a popular guide to the mammals of North America north of Mexico, with intimate biographies of the more familiar species. *4to. pp. 23+318. col. pl. text-figs.* *Garden City, N.Y.*

Forming one of the volumes of the *New Nature Library.*

1924. The Ornithology of Today and Tomorrow. *4to. pp. 25.* *Cambridge (Mass.).*

Privately printed.

1927. Ornithology of Patagonia. Reports of the Princeton University Expeditions to Patagonia, 1896–9. *folio. pp. 719–857. 15 col. pl.* *Princeton, N.J., and Stuttgart, Germany.*

This fine treatise forms vol. II, part 5, on the Psittacidae–Icteride of the explored areas. The Reports are edited by William B. Scott and the series is issued by the Pierpont Morgan Publication Fund. The volume in hand is a presentation copy from the author.

STONEHAM, H. F. **1929.** *See* BATELEUR (THE).

STONER, DAYTON.

1918. Rodents of Iowa. *pp. 176. 36 text-figs.* *Dayton, Iowa.*

1924. Spring birds. Author's reprint. (Iowa (State) University Service bulletin. 1924.) *8vo. pp. 8.* *Iowa City, Iowa.*

1924. Winter birds. *8vo. pp. 8.* *Iowa City, Iowa.*

STONEYHURST MAGAZINE. 1888. *See* ANONYMOUS. Birds of the Stoneyhurst district.

STONHAM, CHARLES [1858–1916].

1906–11. The birds of the British Islands. . . . Illustrated by Lilian M. Medland. *5 vols. 4to.* Vol. I, *pp. vii+152. 64 pl. 2 maps. 2 figs.* Vol. II, *pp. vii+153–324. 60 pl.* Vol. III, *pp. vii+325–514+(12). 73 pl.* Vol. IV, *pp. vii+515–706. 50 pl.* Vol. V, *pp. viii+707–976. 71 pl. glossary. bibliogr. 2 indexes.* *London.*

A popular account of British birds. The plates vary, some being excellent. The work appeared in 20 parts. The covers of the parts are, in this library copy, bound in at the end of the volumes.

**** and **BAKER,** E. C. STUART.

1930–*date*. The Birds of the British Islands. *6 vols. 4to. photogravure pl. 318 illust. index.* New, enlarged and revised edition by E. C. Stuart Baker.

A reliable, semi-popular work that brings the whole subject up to date. It seems a pity that the publishers were not able to employ colored instead of black-and-white illustrations for so admirable a treatise.

STORER, DAVID HUMPHREYS [1804–91].

1838–9. *See* MASSACHUSETTS, STATE OF.

**** and **PEABODY,** W. B. O.

1839. Report on the Fishes, etc., of Massachusetts. *8vo. 4 pl.* *Boston.*

1846. A Synopsis of the Fishes of North America. *4to. pp. 298.* (Wanting.) *Cambridge, Mass.*

Originally published as a *Memoir of the American Academy, Boston.*

STORER, TRACY IRWIN and **GRINNELL,** J.

1924. Animal life in the Yosemite; etc. *See* GRINNELL, J. and STORER, T. I.

STORIES FROM NATURE. 1897–8. *Deland.*

STORMY PETREL. A paper devoted to Oology and Ornithology.

1890. Pub. and editors: M. Smith & Co., Mendota, Illinois. *8vo.*

F. L. Burns (*Bibliog. of rare North Am. periodicals devoted to ornithology*, 1915, No. 123) notes:
Vol. I, 1890, Nos. 1–5. *pp. 32* (all issued). Each no. paged separately. The periodical was the successor of *The Exchange*, and contained notes by S. H. Bowdish, E. B. Peck, J. W. P. Smithwick, and other ornithologists.

STRADANUS, J. **1566.** *See* STRAET, JAN VAN DE.

STRAET, JAN VAN DE [1536?–1605].

1566? Venationes ferarum, avium, piscium. Pugnae bestiariorum: & mutuae bestiarum, depictae a Joanne Stradano: editae a Philippo Gallaeo: carmine illustratae a C. Kiliano Dufflaeo. *4to. 101 pl.* Latinized name of author Johannes Stradanus. *Antwero.*

This curious treatise on hunting birds and beasts, and on animal contests (bull-baiting, etc.) is well illustrated by numerous plates. Souhart's *Bibliographie Générale des Ouvrages sur la Chasse*, p. 446, places the date of one copy at 1580 with 104 pl. Perhaps the copy in hand (undated) is the one referred to. In any event the example in the Blacker Library (q.v.) certainly is.

1580. Venationes ferarum, Auium, Piscium, Pugnae Bestiariorum, etc. Eng. title. *folio. 97 (of 105) pl.* *Antverpiae.*

STRAITS BRANCH OF THE ROYAL ASIATIC SOCIETY OF GREAT BRITAIN AND IRELAND. *See* ROYAL ASIATIC SOCIETY . . . STRAITS BRANCH.

STRALSUND MUSEUM.

1869. Tabellen zur Bestimmung deutscher Wirbelthiere. Aves. *8vo. pp. [2]+38. Stralsund.*

A list of the German vertebrates in the Stralsund Museum, birds occupying pp. 9–24. From Prof. Reichenow's library.

STRASBOURG, MUSÉUM D'HISTOIRE NATURELLE. *See* SOCIÉTÉ DES SCIENCES DE NANCY.

STRASBOURG. Société des Sciences Naturelles.

1868–1930. Bulletin. Suspended 1914–19. After 1874 pub. in Nancy and continued as Bulletin des Séances.

1830–70. Mémoires.

STRASSEN, OTTO L. ZUR.

1911–13. Die Vögel. *See* BREHM, A. E.

STRATTON-PORTER, GENE. *See* PORTER, *Mrs.* GENE (born STRATTON) [1868–1924].

STRAY FEATHERS. A Journal of Ornithology for India and its Dependencies.

1872–99. Edited by Allan C. Hume. With maps and colored plates. *8vo. Calcutta.* Issued irregularly, six numbers per volume. Vols. I–XI and Index, Vol. XII, the last by C. Chubb. 'A Systematic and General Index to Vols. I–XI.' *8vo. London,* 1899. Each volume has a table of contents.

Although constantly laboring under the disadvantages of other and more absorbing work and finally obliged, owing to the latter circumstances, to abandon the enterprise, the editor of this most interesting and valuable periodical has added greatly to our knowledge of the birds of Asia.
Although he contributed most of the papers, some of them classical essays on Indian birds, yet other well-known ornithologists also furnished papers of the highest value.
Among these we find the names of D. G. Elliot, W. Edwin Brooks, E. A. Butler, V. Ball, W. V. Legge, Jerdon, E. W. Oates, W. T. Blanford, and many other authorities on the birds of India.

STRECKER, J. K., *jr.*

1912. The Birds of Texas. An annotated check list. *Waco, Tex.*

STREETS, THOMAS HALE [1847–].

1877. Contributions to the natural history of the Hawaiian and Fanning Islands and Lower California, made in connection with the United States North Pacific surveying expedition, 1873–75. *8vo. pp. 172. index. Washington.*

Author's issue of *Bulletin United States National Museum,* No. 7. The collections that furnished the material were made by Surgeon W. H. Jones, U.S.N., and the writer, the identification of the birds by Elliott Coues.

STRESEMANN, ERWIN.

1919. Über die Formen der Gruppe Aegithalos caudatus. *8vo. pp. 56. illust. München.*

1920. Avifauna macedonica. Die ornithologischen ergebnisse der forschungsreisen, unternommen nach Mazedonien durch Doflein und L. Müller . . . in den jahren 1917 und 1918. *8vo. pp. 24+270. 6 pl. München.*

An excellent, detailed account of 168 varieties of birds collected or seen in Macedonia. A systematic description, with plumage and other characters, a check list, and mention of several new species will be found in these pages.

STRICKLAND, HUGH EDWIN [1811–53] and **MELVILLE,** A. G.

1848. The dodo and its kindred; or, The history, affinities, and osteology of the dodo, solitaire, and other extinct birds of the islands Mauritius, Rodriguez, and Bourbon. *folio. pp. iv+141. 18 pl. (2 col.). 10 figs. 2 append. index. London.*

The standard work on the subject.

1848–54. Bibliographia Zoologiae . . . by L. Agassiz. Edited by H. E. Strickland. *4 vols. 8vo.* Published by the Ray Society. *See* AGASSIZ, J. L. R.

****, **STRICKLAND,** *Mrs.* H. E., and **JARDINE,** WILLIAM.

1855. Ornithological synonyms. Vol. I. Accipitres. *8vo. pp. 46+222. T. of c. London.*

This widely known and very useful work of reference is a posthumous treatise intended to form one of several volumes, but nothing further was issued except a couple of sheets of vol. II. The present copy is interleaved and crowded throughout with notes by R. Bowdler Sharpe (in whose library it at one time was) who evidently used it in the preparation of some of his works.

**** and **JARDINE,** WILLIAM.

1858. Memoirs of Hugh Edwin Strickland. *8vo. pp. 287+441. portr. 9 pl. 11 maps. 41 figs. T. of c. London.*

1882. A Catalogue of the collection of birds formed by H. E. Strickland. *See* SALVIN, O.

STROMER VON REICHENBACH, ERNST [1871–].

1902. Die Wirbel der Land-Raubtiere, etc. *4to. pp. 8+276. 24 tab. 5 pl.*

An important study in morphology; an author's reprint from *Zoologica,* 1902.

1909–12. Lehrbuch der Paläozoologie. *2 pts. (vols.). 8vo. illust. Leipzig and Berlin.*

STRUGNELL, W. B. **1892.** *See* WITCHELL, C. A.

STUART-WORTLEY, A. J. **1893–5.** *See* MACPHERSON, *Rev.* HUGH A.

STUDENT AND INTELLECTUAL OBSERVER. 1868–71. *London.*

STUDENT AND INTELLECTUAL OBSERVER OF SCIENCE, LITERATURE AND ART. 1868–71. *See also* INTELLECTUAL OBSERVER. *London.*

STUDER, JACOB HENRY [1840–1904] and **JASPER,** THEODORE.

1874–5. Studer's popular ornithology, . . . The Birds of North America, etc. *folio. pp. (4)+182. 119 col. pl. 2 indexes. Columbus, O.*

Published in 40 parts in combination with the same authors' *Ornithology, or the Science of Birds,* 1878. Coues gives the date of issue of the first part as January 29, 1874, and the last as October 1878, and lists five other impressions of the same work; there is, also, at least one other edition, all of which are in the E.S.W. Library. Most of them are under the above heading or follow the caption, JASPER, THEODORE. The treatise is a popular account of North American birds, compiled from various sources and illustrated by chromolithographs. Covers of parts 1–20 are bound in at the end of the present volume.

1881. Studer's popular ornithology; the birds of North America; upwards of 700 different species and varieties, comprising all that are known to exist on this continent, artistically drawn and colored from nature by Theodore Jasper. *folio. pp. [10]+182. 119 col. pl. New York.*

[**STUDER,** J. H. (*contd.*)]

1894. The birds of North America, prefaced by a systematic table arranged according to the classification adopted by the American Ornithologists' Union. *folio. illust.* *New York.*

1897. The Birds of North America, etc. *folio. pp. 182. 119 col. pl. index.* *New York.*

1903. Birds of North America, etc. *folio. pp. 190. 119 col. pl.* *New York.*

n.d. The Birds of North America, etc. *folio. pp. 182. 119 col. pl. index.* *Montreal.*

Another of the numerous family of Studer-Jasper volumes that differ from one another mostly in the title, year, and place of publication, the text and illustrations being practically identical.

n.d. Birds of North America, etc. *4to. 119 crayon pl.* (T. Jasper.) *New York.*

Still another printing, differing from those listed *supra* by a slight difference in size and in the lettering of the title-page.

STUDER, THEOPHIL [1845–1922], **FATIO,** VICTOR, and **BURG,** GUSTAV VON; **KNOPFLI,** W. and **others.**

1889–1930. Katalog der Schweizerischen Vögel. Lieferungen I–XVI. *8vo. pp. 3,279. 21 col. charts. indexes.* *Basel, Bern,* and *Genf.*

This excellent description of Swiss birds was begun by Studer and Fatio and continued by Burg in 1907. A French edition—*Catalogue des Oiseaux de la Suisse,* closely translated from the German, appeared at about the same dates. With the 13th part the titles were altered, to *Die Vögel der Schweiz* and *Les Oiseaux de la Suisse* respectively. The Lieferungen are continuously paged and there is in Lief. XI an index to the first eleven parts. Distributional, colored, maps are also furnished. Unfortunately there are no colored pictures of the 274 species of birds. The present series is a presentation copy from G. von Burg.

**** and **FATIO,** VICTOR.

1892. Catalogue distributif des oiseaux de la Suisse. *8vo. pp. 69. map.* *Berne.*

The title and contents given in French, Italian, and German.

**** and **BURG,** GUSTAV VON.

1916. Verzeichniss der schweizer Vögel und ihrer Verbreitungsgebiete. *8vo. pp. 92. illust. 1 col. map.* *Bern.*

First published in both French (*Catalogue*) and German (*Katalog*) in 1892 by Studer and Fatio alone. In the present printing von Burg takes Fatio's place. There are blank pages provided for notes on the 360 species of Swiss birds whose systematic names are given, followed by the vernacular equivalents in German, French, and Italian and a brief description of each bird.

STUHLMANN, FRANZ LUDWIG [1863–].

1891–1901. Zoologische Ergebnisse einer in den Jahren 1888–90 . . . Ost-Afrika unternommenen Reise. *2 vols. 8vo.* (Wanting.) *Berlin.*

The mammals of this important expedition were described by T. Noack, *pp. 88, 2 col. pl.*, 1891; birds by A. Reichenow, *pp. 27*, 1893; reptiles and amphibia by G. Pfeffer, *pp. 37, 2 pl.*, 1893; fishes by the same writer, *pp. 49, 3 pl.*, 1893.

STURGIS, *Mrs.* BERTHA BEMENT.

1928. Field-book of Birds of the Panama Canal Zone. *8vo. pp. 39+466. 6 col. and 18 plain pl. 107 text-figs. map.* *New York.*

A very useful handbook dealing with 434 species. Keys are furnished to the humming-birds and trogons.

STURM, FRIEDRICH. **1820–60.** *See* NAUMANN, JOHANN ANDREAS.

STURT, CHARLES [1795–1869].

1833. Two expeditions into the interior of southern Australia, during 1828–31. *2 vols. 8vo.* Vol. I, *pp. 80+219. 5 pl.* (*2 col., birds*). *map. 6 append.* Vol. II, *pp. 5+271. 9 pl.* (*2 col., birds*). *2 append.* *London.*

This is the rare *editio princeps,* marked 'wanting' in the *Cat. Br. Mus.* (*Nat. Hist.*).

1849. Narrative of an expedition into central Australia . . . during 1844–6. *2 vols. 8vo.* Vol. I, *pp. 10+416. 8 pl.* (*4 col.*). *1 map. 11 figs.* Vol. II, *pp. vi+308+92. 8 pl.* (*2 col.*). *4 figs. T. of c. append.* *London.*

An account of one of several exploratory excursions into various regions of Australia, the first one of which included the natural history of New South Wales and appeared in 1833, with a second edition in 1834. The Appendix of vol. II, present title, contains the natural history report.

STURTEVANT, EDWARD.

1899. *See* HOWE, R. H. and STURTEVANT, E.

1903. *See* HOWE, R. H. and STURTEVANT, E.

STUTTGART, Naturaliensammlung.

1896–*date.* Mitteilungen.

1896–1917. As (K.) Naturalienkabinett.

STUTTGART. Verein für vaterländische Naturkunde in Wurttemberg. (Founded 1844.)

1845–1930. Jahreshefte.

STUXBERG, ANTON JULIUS [1849–1902].

1895. Sveriges och Norges fiskar. *8vo. pp. 4+678. 308 figs.* *Göteberg.*

A systematic and important study of Scandinavian fishes.

SUCHETET, ANDRÉ [1849–].

1894. Histoire du bimaculated duck de Pennant. *4to. pp. 5+49. 4 pl.* (*2 col.*). *Lille.*

1896. Des hybrides à l'état sauvage. Règne animal. 1. volume. (Classe des oiseaux.) *4to. pp. 152+1001. index.* *Lille.*

A comprehensive study of avian hybrids—probably the most complete work on this subject in any language. It is, unfortunately, not illustrated. So far as the Compiler knows none of the other (advertised) volumes in this series were issued. In the present copy the title-page is dated 1896. The Ayer *Catalogue* has it 1897.

SUCKLEY, GEORGE [1830–1905] and **COOPER,** J. G.

1859–60. The Natural History of Washington Territory and Oregon . . . Minnesota, Nebraska, Kansas, Utah and California, etc. Pts. I–III. *4to. illust.* *New York.*

Copies of this admirable work (in three parts) are becoming rare. The material in the present volume has been variously utilized in the preparation of other publications, most of which have been listed in the appended catalogue. According to the preface the description of the collected vertebrates is by G. Gibbs and G. Suckley, Water Birds having been written entirely by the latter. The Zoological Report, Part III, *pp. 8+399+72,* is illustrated by 54 fine colored plates. *See also* COOPER, J. G., 1859.

SUE, P.

1808. Tables analytiques et raisonnées pour la nouvelle édition de l'Histoire Naturelle de Buffon. *3 vols.* (Wanting.) *Paris.*

SUFFOLK INSTITUTE OF ARCHAEOLOGY AND NATURAL HISTORY. **1848–*date.*** *Ipswich.*

SUISANKAI. (Journal of the Fisheries Society of Japan.) **1883?–*date.*** *Tokyo.*

SULPHUR, VOYAGE OF THE. **1843–4.** *See* HINDS, RICHARD BRINSLEY.

SUMICHRAST, Francis E. [1828–82].

1876. Birds of Southwestern Mexico. *8vo. pp. 56. U.S. Nat. Mus. Bulletin,* No. 4.

The work of arranging and describing this collection was done chiefly by G. N. Lawrence.

SUNDEVALL, Carl Jacob [1801–75].

1836. Ornithologiskt System; af C. J. Sundevall. *no t.-p. pp. 43–130. Stockholm.*

An early exposition of the author's peculiar system of classifying birds, and a forerunner of his *Tentamen,* 1872–3. The present volume is a separately bound pamphlet from the Godman Library.

1856–87. Svenska Foglarna med Text; tecknade och Lithographierade af Peter Akerlund. *4 vols. and Atlas. 4to. pp. 1,570. 84 col. pl. T. of c. Stockholm.*

An interesting and systematic account of 238 species of birds observed in Sweden by this well-known ornithologist. The plates are well made and greatly assist the identification of varieties. The work appeared in 22 parts, at irregular intervals. After Sundevall's death three supplementary volumes were published, the last part, XL, in 1887. A collation of all these parts is given by Zimmer (*Ayer Cat.,* p. 610). A complete set is rare.

?1857. Einleitung zu seinem Versuch einer natürlichen Eintheilung der Vogel-classe aus dem Schwedischen übersetzt und mit Zusätzen versehen von W. Meves; hrsg. vom Permanenten Internationalen Ornithologischen Comité. *8vo. no t.-p. pp. 53.*

This is a translation of Sundevall's Natural System of classification of birds in order to render it more accessible to ornithologists than the Swedish original. The latest date referred to in the text is 1857.

1857. Kritisk framställning af Fogelarterna uti äldre Ornithologiska arbeten. 1. Museum Carlsonianum. 2. Le Vaillant, Oiseaux d'Afrique. *4to. pp. 60. Stockholm.*

Author's reprint from the Cabanis collection.

1863. *See* ARISTOTLE.

1866. Conspectus avium picinarum. *8vo. pp. 14 +116. index. Stockholmiae.*

A complete review of Melherbe's *Monographie des Picidées,* 1859–62, an index to which prefaces this work. The copy in hand is from the library of P. L. Sclater who has added numerous marginal notes on many of the woodpeckers.

1869. [Opera minora.] *4 pts. in 1 vol. 8vo. no t.-p.*

Ofversigt af Kongl. Vetenskaps-Akad. Förhandlingar, 1869, no. 6. Paged continuously.

1872–3. Methodi naturalis avium disponendarum tentamen. Försök till fogelklassens naturenliga uppställning. *4to. pp. 69+187+12. 1 pl. append. index. Stockholm.*

An exposition of the author's system of classification of birds. Numerous new genera and one new species are described. The treatise was issued in two parts, the first in 1872, the second in 1873, having been delayed by the illness of the author. The introduction is given in both Swedish and French.

1872. Om Rudbecks Fogelbok. *4to. pp. 20. Uppsala.*

A reprinted account of a pre-Linnean, seventeenth-century 'Bird Book' in which several hundred species are more or less plainly pictured. From the Cabanis-Reichenow collection.

1889. Sundevall's Tentamen. [Methodi naturalis avium disponendarum tentamen]; tr. into English with notes by Francis Nicholson. *8vo. pp. 14+316. portr. 2 append. index. London.*

An English translation of a well-known ornithological fundamental, first published in 1872–3. In it is given the author's own classification. For each species the types, including those new to science, are given, while many new genera are also described. The portrait was made especially for this edition. The work is quite rare and is not mentioned in any of the standard catalogues. The present copy is from the Godman Library.

1893–5. *See* FRIES, B.

SUNDIUS, Petrus (Peter Sund).

1742. Surinamensis grilliana. Inaug. Diss. *8vo. illust.* Carolus Linnaeus, Professor. *Stockholm.*

A study in natural history based on the Grill collection of Surinam fauna. It is interesting as the candidate was a student in the class of the celebrated Linnaeus, at the time professor of botany and medicine in the University of Stockholm and who certainly supervised the preparation of the paper. It is a typical example of the inaugural dissertation about the middle of the eighteenth century.

SUNDMAN, Gösta and **PALMÉN,** Johann Axel.

1879–88. Finska Fogelägg. *folio. pp. 52. 25 pl. (col., 234 figs. of eggs). Helsingfors.*

A series of good chromolithographic plates of the eggs of Finnish birds by Sundman, with introduction and text in Swedish and Finnish by J. A. Palmén. The work was issued in nine parts with three plates in each of parts 1–7 and two in each of parts 8 and 9, parts 1 and 2 appearing in 1879, and 8 and 9 in 1888. The text by Palmen was issued with parts 1–5 in German and English (according to the *British Museum Catalogue*), but in the copy at hand it is in Swedish and Finnish. The figures on the plates are in Latin, Swedish, and Finnish. The original covers are bound in.

SUNDSTRÖM, Carl Rudolf.

1877. Fauna oefver Sveriges Ryggradsdjur. *Stockholm.*

1886. Verzeichniss der Vögel Schwedens. *8vo. pp. 13. Stockholm.*

A list of 302 birds visiting or indigenous to Sweden, with a systematic arrangement in tabular form. From Prof. Reichenow's library.

SUNNY SOUTH OOLOGIST.

1886. A Monthly devoted to the interest of Ornithologists and Oologists. Edited and published by Edwin C. Davis. *12mo. Gainesville, Texas.* Frank L. Burns notes:
Vol. I, 1886, Nos. 1–3, Mar.–May. *pp. 40.*

Suspended and subscriptions returned. A neat little magazine containing notes by W. L. Kells, G. Noble, Geo. H. Selover and other writers on ornithological subjects.

SUOLAHTI, Hugo.

1909. Die deutschen Vogelnamen; eine wortgeschichtliche Untersuchung. *8vo. pp. 34+540. index. Strassburg.*

A valuable contribution to classification, with a complete bibliography of German avifaunal glossaries, dictionaries, and cyclopedias.

SUPINO, Felice.

1916. I pesci d'acqua dolce d'Italia. *4to. pp. 12+87. 30 col. pl. 31 text-figs. index. Milano.*

An excellently written, systematic, and popular manual on the freshwater fishes of Italy.

SUSCHKÎN (or Sushkîn), Peter Petrovîch.

1899. Nouveaux Mémoires. *4to. Moscow.*

SUSEMIHL, Erwin Edward. **1839–51.** *See* SUSEMIHL, JOHANN CONRAD.

SUSEMIHL, Johann Conrad [1767–1837].

1839–51. Abbildungen der Vögel Europas. 36 Lief. *4to. pp. 116+16. 106 col. pl. Stuttgart.*

There were quite a few changes in title of this fine atlas. Several names—E. E. Susemihl, F. Gergens, and Dr. Schlegel—were associated in its publication at various dates while (as the subtitle explains) the text that ends abruptly with p. 116 is that of Temminck's *Manuel d'Ornithologie.* In most copies no formal title, apart from the wrappers of the several parts, is shown, and there are several other signs of incompleteness about the work. According to the *Cat. Br. Mus.* (*Nat. Hist.*), pp. 1–100 of Schlegel's text, *Diurnal Birds of Prey,* with 44 of the colored plates were separately issued as the well-known *Die Europäischen Tag-Raubvögel beschrieben von H. Schlegel.* The copy in hand has the original wrappers bound in and the very rare formal title-page.

[**SUSEMIHL,** J. C. (*contd.*)]

[**1839–51**]. [Abbildungen der Vögel Europas, herausgegeben, gezeichnet und in Stahl gestochen von J. C. Susemihl . . . und E. Susemihl . . . Text nach Temminck's Manuel d'Ornithologie und den vorzüglichsten neueren Schriften und mit Beitragen von mehreren . . . Naturforschern, bearbeitet von . . . Dr. [F.] Gergens [and afterwards] Dr. Schlegel. 36 Lief.] *4to. pp. 116+16. 106 pl. (col.).*

Stuttgart [Darmstadt and Leipzig, 1839–51].

Title supplied from the wrapper to Lief. 1 in the Printed Book Department, British Museum. Gergens' text (issued in Lief. 1 and 2) extended to 16 pp., and was replaced by Schlegel's ; the title, which on the wrapper of Lief. 2 reads simply 'Susemihl's Vögel Europas', being changed to 'Die Vögel Europas. Gezeichnet', etc. Schlegel's text of 116 pp. ends abruptly in the midst of the Nocturnal Birds of Prey, and, though Homeyer was announced in 1851 (wrapper to Lief. 36, 2nd ed.) as about to continue it, no more letterpress appeared. Pl. 49 and onwards are therefore undescribed. Pp. 1–100 of Schlegel's text, the Diurnal Birds of Prey, with 44 pl. corresponding, was afterwards reissued under the title of 'Die Europäischen Tag-Raubvögel, beschrieben von . . . H. Schlegel'. This second copy in the E.S.W. Library, McGill, is the one usually found on the market.

SUTTON, George Miksch.

1928. An introduction to the birds of Pennsylvania. *8vo. pp. ix+169. front. (col.). 154 figs. index.* *Harrisburg, Pa.*

Written by the State Ornithologist in popular style.

SUTTON, J. and **MORGAN,** A. M.

1924. An ornithological trip around Eyre peninsula. The nest and eggs of Diaphorillas textilis myal. A. M. Morgan. *8vo. pp. 46. 1 map (fold.). 1 fig.* *Adelaide.*

Authors' reprint. An annotated list of birds comprises 144 species.

SVALEN. 1883–4.

The Compiler was informed by Hendrik Grönvold that the first two volumes of this periodical [The Swallow] were published at Copenhagen in 1883–4. It then remained dormant for a number of years but was revived and became the organ—published annually—of a society of the same name, 'Svalen', mostly devoted to birds, but also for the protection of animals in general, under the presidency of Madame Malvina Mehrn and (later) of Mr. Dedenroth-Berg, of Copenhagen. First editor and publisher, E. Madsen.

SVENSKA NATURSKYDDSFÖRENINGEN. *See* SVERIGES NATUR.

(K.) SVENSKA VETENSKAPSAKADEMIEN. *Stockholm.*

1820–5. Arsberättelser.

1826–46. Arsberättelser om zoologiens framsteg.

1903–*date.* Arsbok.

1739–79. Handlingar. Series 1.

1780–1812. Handlingar. Series 2.

1813–54. Handlingar. Series 3.

1855–1923. Handlingar. Series 4.

1924–*date.* Handlingar. Series 5.

1823–5. Jahresbericht der Schwed. Acad. d. wissensch. u. d. fort. d. Naturgeschichte, anatomie und physiologie, etc.

1854–*date.* Lefnadsteckningar.

1844–1902. Öfversigt af . . . förhandlingar.

1919–*date.* Skrifter i Naturskyddsärenden.

SVENSK FISKERI-TIDSKRIFT.

1892–1930. *8vo.* *Stockholm.*

SVERIGES NATUR. 1910–20? *Stockholm.*

SWAINSON, Charles.

1885. Provincial names and folk lore of British birds. *8vo. pp. 10+243. front. bibliogr. 2 indexes.* *London.*

Published by the *English Dialect Society* and the *Folk Lore Society*; a compilation of the provincial names of British wild birds, with popular sayings and superstitions attached to them. There are two copies in the McGill libraries, one donated by Peter Redpath from his private collection and the other from the library of R. J. Balston with his marginal notes.

SWAINSON, William [1789–1855].

1820–3. Zoological illustrations, or Original figures and descriptions of new, rare, or interesting animals. First series. *3 vols. 8vo. 182 pl. (col.). bibliogr. indexes.* *London.*

Plates of new, rare, or interesting animals, with one leaf of text to each plate. A second of this fine series was issued in 1829–33 (q.v.). The pages are not numbered in either series.

1829–33. Zoological illustrations; arranged according to their apparent affinities. Second series. *3 vols. 8vo. 136 pl. (col.). bibliogr. indexes.* *London.*

1831. American ornithology. *See* Wilson, A. and Jameson, Robert.

1831. Fauna boreali-americana. *See* Richardson, *Sir* John.

1834. A preliminary discourse on the study of natural history. *8vo. pp. 8+462. append. index.* *London.*

1835. A treatise on the geography and classification of animals. *8vo. pp. 7+367. 55 figs. index.* *London.*

1836–7. On the natural history and classification of birds. *2 vols. 338 figs.* *London.*

The original edition of a classic treatise on avian nomenclature.

1836–7. On the natural history and classification of birds. *2 vols. 8vo.* Vol. I, *pp. vi+365. 113 cuts in text.* Vol. II, *pp. vi+398. 225 (114–338) text cuts.* *London.*

The commoner of the two 'Cabinet' editions of this very useful textbook. With the exception of an added title-page this printing is identical with the original issue. The copies may, indeed, be unbound remainders provided with new titles and covers.

1837. (The) natural history of the birds of Western Africa. *2 vols. 12mo.* Vol. I, *pp. 16+286. 32 col. pl. portr. 9 text-figs.* Vol. II, *pp. 16+263. 9 text-figs. portr. index.* *Edinburgh.*

Vols. VII and VIII of Jardine's well-known *Naturalist's Library.*

[**1838**]. Animals in menageries. (Lardner's Cabinet Cyclopaedia.) *12mo. pp. 6+373. front. 71 figs. 2 indexes.* *London.*

1838. Animals in menageries. *12mo.* *London.*

This copy differs from another issue only in having an added date and title-page.

1838. The natural arrangement and relations of the family of flycatchers, or muscicapidae. *12mo. pp. 14+256. front. portr. 31 col. pl. Edinburgh.*

This is vol. X in the famous Jardine Library, and it is quite equal in text and illustration to the other monographs of that series.

1838–9. The natural history and classification of fishes, amphibians, and reptiles or, Monocardian animals. *2 vols. illust.* *London.*

Another and well-written treatise from *Lardner's Cabinet Cyclopaedia.*

1841. A selection of the birds of Brazil and Mexico. The drawings by William Swainson. *8vo. London.*

A series of 78 hand-colored plates of Neotropical birds, with a list of species prefixed, giving both English and Latin names, most of which appear on the plates. The work was issued originally in (probably) six parts of 13 plates each, 1834–6. No text appears to have been published with the original edition, the title of which was 'Ornithological Drawings'. All of the plates in the present copy are printed on fairly stout paper. Engelmann catalogues both this and the original edition as among the rarest books on South American ornithology.

SWAMMERDAM, JAN. [1637–80].

1669. Historia Insectorum generalis, ofte Algemeene Verhandling van de bloedeloose Dierkens. *4to.* Pub. by M. van Dreunen. *Uttrecht* (sic).

The first edition (from the Osler Library) of a well-known treatise by this famous physician-naturalist. Most of his writings appeared in both Dutch and Latin and several of them were translated into English, French, and German, subsequently appearing in numerous editions. Although in the first instance a practising physician he paid most attention to entomology and comparative anatomy.
He became melancholic (and was probably insane) before his death at the early age of 43, after falling under the influence of that religious fanatic, Antoinette Bourignon, with whose 'pious sentiments' his *Ephemeri Vita* is beclouded.

1675. Ephemeri Vita, of, afbeeldingh van 's Menschen Leven, vertoont in de . . . Historie van het vliegent ende een-dagh-levent Haft of Oever-Aas, &c. *8vo. Amsterdam.*

This work (title from the Osler Library, O. 963) was also translated (by E. Tyson) and published in London, 1681.

1681. Ephemeri vita, or the natural history and anatomy of the Ephemeron, etc. Translated, with a preface, by E. Tyson. *4to. pp. 8+44+8. 5 pl. London.*

1685. Histoire générale des Insectes . . . Avec des figures. *4to. Utrecht.*

This is an exact rendering of the *editio princeps*, 1669, but issued from the press of a different publisher, J. Ribbius.

1758. The Book of Nature; or, The History of Insects . . . Including the generation of the Frog. With the Life of the Author, by Herman Boerhaave. Trans. from the Dutch and Latin original ed., by Thos. Flloyd. Revised and improved by Notes from Réaumur and others by John Hill. *fol. pp. 20+236+153+63. 53 pl.* [O. 964.] *London.*

Issued in two parts each with separate pagination; a collection of all Swammerdam's works. With the title *Biblia Naturae*, etc., this same treatise had been issued by Boerhaave in 1737. It also appeared at various dates as the *Bybel der Natuure*; the *Bibel der Natur*, etc.

SWANN, HARRY KIRKE [1871–1926].

1893. The birds of London. *12mo. pp. 15+136. index. London.*

A useful pocket manual on the subject.

1895. Nature in Acadie. *8vo. pp. 8+74. append. London.*

An account of the author's first voyage from England to Nova Scotia and the birds he saw there. The Appendix contains a systematic list of the species of North American birds mentioned in the work, but is not intended to represent a complete list of Nova Scotian birds.

1896. A concise handbook of [381 species of] British birds. *pp. 8+210. append. London.*

1913. A dictionary of English and folk-names of British birds. *8vo. pp. 12+266. London.*

The preface states that this treatise embraces altogether 5,000 book-names from past authors, accepted-names of species, provincial, local, and dialect names in use in the British Isles, folk-lore, bibliography, and legends. Blank pages are provided for additional notes.

[1915]–17. Illustrations of the game birds and water fowl of South America. *See* GRÖNVOLD, H.

1919. A Bibliography of British Ornithology. *See* MULLENS and SWANN.

1919–20. A synoptical list of the Accipitres (Diurnal Birds of Prey). Comprising Species and Subspecies described up to 1919, with their Characters and Distribution. Pts. I–IV. *8vo. pp. 6+164. index and corrigenda. London.*

The title of this useful list fully explains the contents. The present copy is the author's own working volume with the wrappers bound in. The wrapper for part I is dated 1919, the title-page 1920.

1921–2. A synopsis of the Accipitres (diurnal birds of prey) comprising species and subspecies described up to 1920, with their characters and distribution. 2nd ed. *8vo. pp. viii+233+(8). index. 3 addend. London.*

A revised edition of the *Synoptical List of the Accipitres*, 1919–20. It was issued in four parts. The present copy is an autographed presentation.

1921–2. A synopsis of the Accipitres, etc. *4to. pp. viii+233+(10). front. (portr.). 55 pl. (col.). 22 pl. (col., eggs). index. 3 addend. London.*

Identical with the regular second edition in 8vo of the same date except for the size of the paper and the inclusion of a half-title, the colored plates of birds and eggs, and two leaves of explanation of the latter. The covers of the four parts are bound in at the end of the volume. The fine colored plates are by Keulemans, Wolfe, and others. The frontispiece portrait is of the author. The copy is No. 2 of 12 copies privately printed on large hand-made paper, and is an autographed presentation from the author to Dr. Casey Wood.

1923. A bibliography of British ornithology from the earliest times. *Supplement:* A chronological list of British birds. *8vo. pp. xvii+42. London.*

This supplement to Mullens and Swann's *A Bibliography of British Ornithology* furnishes the specific names of British birds arranged chronologically and with the original literary references. *See* MULLENS, W. H. and SWANN, H. K.

1924–*date*. A monograph of the Birds of Prey (Order Accipitres) . . . Illustrated by Plates . . . by H. Grönvold, etc. Pts. 1–6 by H. Kirke Swann; pt. 7 and continuation by Alexander Wetmore. *4to. London.*

This magnificent treatise, whose publication was interrupted by the death of the original author, is being continued by Dr. Alex. Wetmore of the Smithsonian Institution. The original drawings, first proofs of the plates, and the original MS. are now the property of the Blacker Library.

****** and McNEILE,** J. H.

1925. Two ornithologists on the lower Danube, being a record of a journey to the Dobrogea and the Danube delta, with a systematic list of the birds observed. *8vo. pp. 8+67. illust. T. of c. London.*

An annotated list of Roumanian birds with observations made during the trip. An autographed presentation.

SWARTH, HARRY SCHELWALD [1878–].

1904. Birds of the Huachuca Mountains, Arizona. (*Pacific Coast Avifauna*, No. 4.) *8vo. pp. 70. Los Angeles, Calif.*

1914. Distributional List of Birds of Arizona. *8vo. pp. 133. 1 col. pl. Hollywood, Calif.*

Author's separate, *Pacific Coast Avifauna*, No. 10.

1915. Guide to the exhibit of fossil animals from Rancho Sa Brea. (Los Angeles County Museum of History, Science and Art.) *8vo. pp. 34. 1 pl. 19 figs. in text. Los Angeles, Calif*

Author's reprint, containing references to Pleistocene birds.

[**SWARTH,** H. S. (*contd.*)]

1920. Birds of the Papago Saguaro national monument and the neighboring region, Arizona. Contribution from the Museum of Vertebrate Zoology of the University of California. *8vo. pp. 63. 8 pl. 1 fig. index.* *Washington.*

110 species were noted, nearly a third of the total number (375) known to inhabit Arizona. Two species were added to the list of birds of Arizona, the Indigo Bunting and Bendire's Crossbill. This tractate is an author's separate, issued by the *U.S. Dept. of the Interior, National Park Service.*

1925. *See* BROOKS, A.

1929. (A) systematic study of the Cooper ornithological club. *8vo. pp. 78. illust.* *San Francisco.*

1931. Avifauna of the Galapagos Islands. *8vo. pp. 250. 58 illust.* *San Francisco.*

SWARTZ, OLOF [1760–1817].

1794. Natural-Historian i Sverige. *Stockholm.*

1807–19. *See* PALMSTRUCH, J. W.

SWAYSGOOD, *Mrs.* SUSAN.

1915. California poultry practice. *8vo. pp. 157. front. (portr.). 7 pl. 10 figs. index.* *San Francisco.*

The result of 45 years of experience.

SWAYSLAND, WALTER [–1888] and **others.**

1877–80. The illustrated book of Canaries, etc. *See* BLAKSTON, W. A. and others.

1883–8? Familiar wild birds. Series 1–4. *4 vols. 8vo. index in vol. IV.* *London.*

The collation in Mullens and Swann is as follows: 'Vol. I, *pp. viii+160. 40 col. pl.* Vol. II, *pp. viii+160. 40 col. pl.* Vol. III, *pp. viii+160. 40 col. pl.* Vol. IV, *pp. viii+160. 40 col. pl.* In this (original) issue vol. I is dated 1883, the others are undated. At the end of each vol. is a part on Eggs and Egg-Collecting, by R. Kearton, including 4 of the col. pl. in each vol.'
A popular work on the habits and other characteristics of a long list of British birds. The 144 colored lithographs by Thorburn add much to the attractions of the book and greatly increase its value.

SWEDEN.

1857–1910. Kongliga Svenska Eugenies Reska, etc. *2 vols. illust.* *Stockholm and Uppsala.*

Although important for the invertebrates collected during the voyage, a report on vertebrates was never published.

******. Landtbruksstyrelsen. Fiskeribyrå.**

1895–1914. Fiskeripublikationer. *8vo.* *Stockholm.*

1915–27. Undersökningar rörande sveriges fiskerier, fiskar och fiskevatten. *8vo.* *Stockholm.*

******. Voyage. Magallanes.**

1899–1907. Wissenschaftliche Ergebnisse der Schwedischen Expedition . . . 1895–7 . . . unter Leitung von O. Nordenskjöld. *3 vols. 8vo. illust.* (Wanting.) *Stockholm.*

This important report is partly made in English. It is a valuable addition to our knowledge of the natural history of the extreme southern areas of South America. The zoology of the expedition is given in vol. II, with 306 pp., 25 pl., and illust. in the text. Fishes are described by F. A. Smitt, while a list of reptiles and batrachians is furnished by L. G. Andersson.

SWEDISH ZOOLOGICAL EXPEDITION TO EGYPT AND THE WHITE NILE. *See* JÄGERSKIOLD, L. A., 1904–28.

SWEET, ROBERT [1783–1835].

1823–32. The British warblers. An account of the genus sylvia. *8vo. pp. 24+(20). 16 pl. (col.).* *London.*

A rather rare work about which there is a decided difference of opinion among bibliographers. The 'six' plates of the title appears to have been generally taken as a misprint for 'sixteen', although copies exist with both six and sixteen plates. Mullens and Swann believe that the work was first issued with six colored plates and full descriptive text, and that later the other ten plates with extended text followed.

1853. The British Warblers. Cage and chamber-birds; . . . Incorporating the whole of Sweet's British warblers. *See* BECHSTEIN, J. M.

SWENANDER, GUSTAF.

1902. Studien über den Bau des Schlundes und des Magens der Vögel. *8vo. pp. 2+240. 8 pl.* *Uppsala.*

SWENK, MYRON HARMON.

1904. A preliminary review of the birds of Nebraska. *See* BRUNER, L.

1919. The [427] birds and mammals of Nebraska. *8vo. pp. 21.* *Lincoln, Neb.*

SWINDEREN, THEODOR VAN.

1820. Buffoni et Daubentoni figurarum Avium coloratarum nomina systematica. *See* KUHL, H.

SWINHOE, ROBERT [1836–77].

1870. Chinese zoology. *18 pts. in 1 vol. 8vo. illust. pl.* *London.*

This is a valuable contribution to science, consisting of a collection of the author's publications with a manuscript title, index, and pagination.

SWISS CROSS. (Agassiz Association.) 1887–9.

SYDNEY UNIVERSITY.

1924–*date.* University Reprints (Series 13). Zoology.

SYED NIZAM-UD-DIN.

1914. Aql-O-Shur. Popular encyclopedia in Hindustani, with numerous references to natural history. *folio. pp. 490. many cuts in text. lithograph.* *Lucknow.*

SYEVERTZOV, NĪKOLAĬ ALEKSYEEVĪCH [1825–85].

1873. Vertīkal'noe i ghorīzontal'noe raspredyelenie Turkestanskīkh Zhivotnuikh. [Vertical and horizontal distribution of Turkestan animals.] *folio. pp. 2+157. 10 pl.* *Moskva.*

1873–4. Fauna Turkestaniens, etc. *10 col. pl.* Russian. (Title in German.) *Moscow.*

1883–94. Ornithologie du Turkestan. Lief. 1–4. *4to.*

Written conjointly with Menzbīr, M. A. (q.v.).

1921. Über die zoologischen (hauptsächlich ornithologischen) Gebiete der ausserhalb der Tropen gelegenen Teile unseres Kontinents; übersetzt [from the Russian] und eingeleitet von Hermann Grote. *8vo. pp. 32. illust.* *München.*

SYKES, WILLIAM HENRY [1790–1872].

1832. A catalogue of the mammalia and birds observed in Dukhun, East Indies. *2 vols. 8vo.* *London.*

SYME, PATRICK [1774–1845].

1823. A treatise on British song-birds. *8vo. pp. 6+231. 15 col. pl. T. of c.* *Edinburgh.*

A rather rare, well-written account of 33 species, with excellent plates.

SYRACUSE UNIVERSITY. Zoological Laboratory.

1903–*date.* Contributions.

SZIELASKO, AUGUST EMIL ALFRED [1864–].
1902. Die Bildungsgesetze der Vogeleier bezüglich ihrer Gestalt. *8vo. pp. 23. 4 text-figs.* *Gera.*
On the mathematical measurement of birds' eggs, with formulae for determining their rate and form of development. A present to Prof. Reichenow from the author.

1904. Untersuchungen über die gestalt und die bildung der vogeleier. *8vo. pp. 29.* *Königsberg.*
An inaugural dissertation.

1920. Die Gestalten der normalen und abnormen Vogeleier. *8vo. pp. 6+119. 2 pl. 34 tab. T. of c.* *Berlin.*
An extensive, mathematical study of the development, shape, and size of both normal and abnormal birds' eggs. From the Cabanis collection.

SZYMONOWICZ, LADISLAUS.
1901. Lehrbuch der Histologie und der mikroskopischen Anatomie. *8vo. pp. 11+455. 52 col. pl. text-figs.* *Würzburg.*

TABLETTES ZOOLOGIQUES. 1885–92. *Poitiers.*

TACZANOWSKI, WŁADYSŁAW [or LADISLAS, or VLADÍSLAV] [1819–89].
1862. K. Hr. Tyzenhauza Oologia Ptaków Polskich, wystawiona na 170 tablicach . . . do których opisy ułożył W. Taczanowski. [K. Tyzenhauz's Oology of Polish Birds, displayed in 170 plates . . . to which descriptions have been arranged by W. Taczanowski.] *1 vol. and atlas. 8vo. pp. 524. 170 col. pl. index.* *Warsaw.*

1874–82. [Les oiseaux du Pérou.] *6 vols. 8vo.*
A large number of author's extracts (from various publications) on South American avifauna.

****** and BERLEPSCH,** HANS VON.
1883–5. Liste des oiseaux recueillis par MM. Stolzmann et Siemiradzki dans l'Ecuateur occidental. *3 pts. 8vo. n.p.*
Authors' reprint.

1884–6. Ornithologie du Pérou. *4 vols. 8vo.* *Rennes.*
There are no illustrations. The fourth part or volume consists of synoptic tables to determine the Peruvian genera and species of birds.

TAEUBER UND WEIL.
[**1926–7**]. Alte Naturwissenschaften. *8vo. pp. 172. illust. index.* *München.*
A dealer's illustrated catalogue listing 239 early works on natural history, mostly published in the fifteenth and sixteenth centuries.

TAGSBERICHTE ÜBER DIE FORTSCHRITTE DER NATUR- UND HEILKUNDE. 1850–2. *See also* NOTIZEN A. D. GEBIETE D. NATUR- UND HEILKUNDE. *Weimar.*

TAIT, WILLIAM CHASTER.
1924. The birds of Portugal. *8vo. pp. 12+260. front. 9 pl. map. 2 append. index.* *London.*

TAIWAN HAKUBUTSU GAKKWAI. *Taiwan.*
1911–*date.* [Transactions.] English title, Natural History Society of Taiwan.

TALBOT, PERCY AMAURY [1877–].
1923. Life in Southern Nigeria. *8vo. pp. 16+356. 32 pl. map. 1 fig. index.* *London.*

'TALISMAN', VOYAGE OF THE FRENCH STEAMER. 1888. *See* 'TRAVAILLEUR'.

TALSKY, JOSEF.
1880? Talsky's ornithologische Sammlung im städtischen Museum. *8vo. pp. 11. illust.* *Neutitschein.*
A brief notice of a small town (Czechoslovakia) collection of birds.

1893. Der Staar (Sturnus vulgaris L.) und die Landwirtschaft. *8vo. pp. 13.* *Lieben.*
A pamphlet on the Starling in Czechoslovakia.

TANAKA, SHIGEHO.
1911–27. Figures and descriptions of the fishes of Japan, including Riukiu Islands, Binin Islands, Formosa, Kurile Islands, Korea and Southern Sakhalin. *42 pts. 4to. paged continuously. illust.* *Tokyo.*
An important, comprehensive, and recent serial on Japanese ichthyology in course of publication.

TANCRED, THOMAS [1808–80].
n.d. Notes on the natural history of the Province of Canterbury in the Middle Island of New Zealand. *8vo. pp. 34. n.p.*

TANNENBERG, E. DE. **1872.** *See* CARUS, J. V.

TANSLEY, A. G. **1923–4.** *See* GARDINER, JOHN STANLEY.

T'AO CHU-KUNG 陶朱公 [1122–249 B.C.].
1844. Yang yü ching 養魚經. How to rear fish. *pp. 2.* (In *Yü han shan fang chi i shu* 玉函山房輯佚書.) *20×12·6 cm.* [G.]

TARTU, ESTONIA. Ülikool.
?–**1905.** As Dorpater Naturforscher Gesellschaft.
1853–*date.* Aruanded.
1884–*date.* Schriften.

TASCHENBERG, ERNST OTTO WILHELM [1854–1928].
1886–1930. Bibliotheca Zoologica. Continuation of Carus' Bibliotheca Zoologica. *8vo. See* ENGELMANN, W. *Leipzig.*

1909. Die giftigen Tiere; ein Lehrbuch für Zoologen, Mediziner und Pharmazeuten. *8vo. pp. 16+325. illust.* *Stuttgart.*

TASMANIAN JOURNAL OF NATURAL SCIENCE. *Hobart, Tasmania.*
1842–9. Nos. 1–7.

TASMANIAN NATURALIST. (Journal of Tasmanian Field Naturalists' Club.)
1907–11.
1924–*date.* New series.

TASSY, GARCIN DE.
1860. Le Langage des Oiseaux. 3rd ed. *8vo. pp. 72.* *Paris.*
Extract from *La Revue Contemporaine,* tome xxiv.

TAVERNER, PERCY ALGERNON [1875–].

1919. Birds of eastern Canada. (Canada. Department of Mines. No. 3. Biological Series.) *8vo. pp. 297. 50 col. pl. 68 figs. glossary. index. Ottawa.*

An excellent catalogue of the birds of eastern Canada between the Atlantic coast and the prairies north of the International Boundary. Following a general description of each species are notes on distinctions, field marks, nesting, and distribution, etc. English and French vernacular names are given as well as a Glossary and Bibliography. A second edition was issued in 1922.

1922. Birds of eastern Canada. (Canada. Depart. of Mines. Memoir 104. No. 3. Biological Series.) 2nd ed. *8vo. pp. 3+290. 50 col. pl. 68 figs. glossary. index. Ottawa.*

A revised and improved issue.

[**1922**?]. Bird houses and their occupants. *8vo. pp. 15. 33 figs. Ottawa.*

Author's reprint from the *Canadian Field Naturalist*, 1919. The present copy is of the third edition; the first appeared in 1920, and the second in 1921.

1925. *See* LAING, H. M.

1926. Birds of Western Canada. (Canada. Department of Mines. Museum Bulletin No. 41.) *8vo. pp. 4+380. 84 col. pl. 385 figs. bibliogr. glossary. index. Ottawa.*

This work covers all the birds known to occur in Canada from the Ontario–Manitoba boundary line to the Pacific coast, and is complementary to *Birds of Eastern Canada* by the same author, thus forming a popular manual of all the birds of the Dominion. Following a general description of each species are notes as to field marks, nesting habits, and distribution. The fine colored plates are by Allan Brooks and F. C. Hennessey; and there are many additional figures in the text. The present copy is autographed by the author, and presented to Dr. Casey A. Wood by the Hon. Charles Stewart, Minister of Mines, in commemoration of the first meeting of the American Ornithologists' Union ever held in Canada, October 11–14, 1926.

1927. A study of Buteo borealis, the red-tailed hawk, and its varieties in Canada. *8vo. pp. (4)+20. front. (map). 3 col. pl. T. of c. bibliogr. Ottawa.*

Author's reprint from Museum Bulletin No. 28, Biological Series No. 13. A critical study of the species, derived from an examination and comparison of 157 skins.

n.d. Vanished and vanishing birds. *16mo. pp. 8. ? Ottawa.*

A short account of the birds that have vanished or are on the point of disappearing from the Dominion of Canada. Amongst them are the Passenger Pigeon, Great Auk, Labrador Duck, Eskimo Curlew, Hudsonian Godwit, and the Wood Duck.

TAVERNIER, JEAN BAPTISTE [1605–89].

1690. Viaggi nella Turchia, nella Persia e nell' Indie; [tr. from the French]. *3 vols. illust. Bologna.*

This traveler, on his famous journey to the Far East, often mentions and describes the faunal life he encountered. He depicts a number of 'curious' birds, among them the Bird of Paradise (vol. iii, p. 391), and explains why they were without legs and feet for which, of course, they had no use since they 'floated and flew in the empyrean and never came to roost'. The copy in hand is very rare. From Dean Adams' library. An English edition of Tavernier's *Voyages* was published by J. Pinkerton in 1811.

TAVISTOCK, *Marquess of.*

1929. Parrots and Parrotlike Birds in Aviculture. *8vo. London.*

An excellent monograph on the subject, the substance of which appeared in *Cage Birds*.

TAXIDERMIST, THE.

1891. A monthly journal devoted primarily to practical Taxidermy, Ornithology and Oology. Editor: E. W. Martin. *8vo. Medina, Ohio.*

Fox says there were 12 nos., 1891 (all pub.).

TAYLOR, ALFRED.

1913. Birds of a county palatine . . . county of Lancaster. *folio. pp. 148. 15 pl. text-figs. London.*

An unusually good example of a treatise on local ornithology. For the information of the uninformed, Lancashire and Cheshire are still—nominally at least—under the jurisdiction of an Earl Palatinate and not under the Sovereign.

TAYLOR, EDWARD H.

1921. Amphibia and Turtles of the Philippine Islands. *8vo. pp. 193. 17 pl. Manila.*

One of several fine, well-illustrated monographs on the faunae of the Philippines by this careful, systematic writer.

1922. The Lizards of the Philippine Islands. *8vo. pp. 269. 23 pl. Manila.*

1922. The Snakes of the Philippine Islands. *8vo. pp. 312. 37 pl. Manila.*

TAYLOR, GEORGE CAVENDISH.

[**1860**]. On birds collected or observed [93 species] in the republic of Honduras. *4 pts. in 1 vol. 8vo. [London.]*

Author's separate from *Ibis*. The present copy is from the Godman Library.

TAYLOR, HENRY OSBORN [1856–].

[**1922**]. Greek Biology and Medicine. *8vo.* [O.] *London.*

TAYLOR, H. R.

1897. (The) story of the Farallones. *See* BARLOW, C.

TAYLOR, JOHN ELLOR [1837–95].

1876. Notes on collecting and preserving natural history objects. *12mo. pp. viii+215. 45 figs. index. London.*

1901. Half-hours in the green lanes: a book for a country stroll. *12mo. pp. 8+328. front. 262 figs. index. Edinburgh.*

The ninth edition of a very popular volume. The first edition appeared in 1873.

TAYLOR, JOSEPH [?1761–1844].

1807. Ornithologia curiosa; or, The wonders of the feathered creation. *16mo. pp. 216. index. London.*

A compilation of anecdotes from various authors, such as Buffon, Pennant, Latham, *et al.*

1815. Tales of the robin, and other small birds, selected from the British poets. *12mo. pp. 144. 5 pl. London.*

TAYLOR, RICHARD.

1855. Te Ika a Maui; or, New Zealand and its inhabitants. *8vo. pp. 14+490. front. 10 pl. (8 col.). 63 figs. 1 map. 9 append. index. London.*

The natural history will be found on pp. 394–429.

TAYLOR, WALTER PENN [1888–] and **SHAW,** WILLIAM THOMAS [1873–].

1927. Mammals and birds of Mount Rainier National Park. Illust. by William L. Finley, Irene Finley, William T. Shaw, J. B. Flett, and others. *8vo. pp. viii+249. 109 figs. fold. map. index.* (U.S. Dept. of the Interior.) *Washington, D.C.*

Author's reprint. A most interesting and well-written monograph.

TAYMUR MIRZA. *See* PHILLOTT, D.

TCHIHATCHEFF, PIERRE A. DE [1812–90].

1853–6. Asie Mineure, etc. *9 vols. with atlases. 8vo. and 4to.* Pt. II. Zoologie. *See also* CHIKHACHEV, P. A. *Paris.*

TEACHERS' NOTES ON NATURE STUDY; PLANTS AND ANIMALS.

n.d. *12mo. pp. viii+232. 72 pl. 2 figs. T. of c. London.*

The animals are depicted as blackboard drawings—a good idea in teaching.

TEGETMEIER, WILLIAM BERNHARD [1816–1912].

1867. The poultry book: comprising the breeding and management of profitable and ornamental poultry. *8vo. pp. 8+356. 30 col. pl. 15 pl. 39 figs. append. index. London.*

A classic manual for the poultry-keeper.

1868. Pigeons: their structure, varieties, habits, and management. *8vo. pp. 6+190. 17 pl. (16 col.). 24 figs. index. London.*

1874. Reprint of Boddaert's Table des Planches, etc. *See* BODDAERT, PIETER.

1881. Pheasants: their natural history and practical management. 2nd ed. *4to. pp. 4+142. 13 pl. 28 figs. append. index. London.*

A very popular work that passed through many editions.

1881. The natural history of the cranes. *See* BLYTH, E.

1882. Reprint of Lichtenstein's Catalogus Rerum Naturalium rarissimarum. Edited for the Willughby Society.

An extremely rare work. There were so many errors in this edition that the subsequent reprint of F. du Cane Godman, made the same year, was substituted for the former. The Compiler and the E.S.W. Library are under obligation to Dr. C. W. Richmond for this rare tractate, not listed in the *Cat. Br. Mus. Nat. History. See also* WILLUGHBY SOCIETY.

1888. Pallas's Sand Grouse (Syrrhaptes paradoxus), its history, habits, food, etc. *8vo. pp. 5+23. front. (col.). 4 figs. bibliogr. London.*

1896. *See* MORRIS, FRANCIS ORPEN.

1897–8. British Birds, etc. *See* BUTLER, A. G.

****** and ORMEROD,** ELEANOR A.

1899. The house sparrow (the avian rat), in relation to agriculture and gardening, with practical suggestions for lessening its numbers. *8vo. pp. 6+90. front. 6 figs. append. London.*

1904. Pheasants; their natural history and practical management. 4th ed. *London.*

1916. A veteran naturalist, W. B. Tegetmeier. *See* RICHARDSON, E. W.

TEMMINCK, COENRAAD JACOB [1770–1858].

1807. Catalogue systématique du cabinet d'ornithologie et de la collection de quadrumanes. *4to. pp. 8+270+34. Amsterdam.*

A rare and useful work, a description of the author's collection of monkeys and birds. On pp. 197–270 new species are described. This fundamental treatise was used for many years as an original source of zoological information.

1813–15. Histoire naturelle générale des pigeons et des gallinacés. Accompagné de planches anatomiques. *3 vols. 8vo.* Vol. I, *pp. 16+499. 1 pl. index.* Vol. II, *pp. 4+477.* Vol. III, *pp. 4+757. 11 pl. index. Amsterdam.*

A monograph of the pigeons and gallinaceous birds. Vol. I contains an account of the pigeons, being a reprint of the text which Temminck had prepared for his illustrated folio that was stolen by Madame Knip. Vols. II and III relate to gallinaceous birds, which Temminck intended for his proposed folio on the pigeons, but which was not published in that form owing to the loss of the text of the latter, an account of which will be found on pp. 640–4 of vol. III. A number of new names are used in this treatise. *See also* KNIP, *Madame, née* P. DE COURCELLES.

1815. Manuel d'ornithologie; ou tableau systématique des oiseaux qui se trouvent en Europe. *8vo. pp. 38+618. Amsterdam and Paris.*

The rather scarce first edition of a well-known handbook on the birds of Europe. This treatise was published in both Amsterdam and Paris. It gives a detailed, systematic account of the avifauna but is not illustrated. The present copy is from the Cabanis-Reichenow collection. An amended edition was published in 1840.

1817. Observations sur la classification méthodique des oiseaux, et Remarques sur l'analyse d'une nouvelle ornithologie élémentaire, par L. P Vieillot. *8vo. pp. 60. Amsterdam.*

1820–40. Manuel d'ornithologie, ou Tableau systématique des oiseaux qui se trouvent en Europe; précédé d'une analyse du système général d'ornithologie, et suivi d'une table alphabétique des espèces. 2nd ed. *4 vols. 8vo. Paris.*

The second edition of this important handbook was much enlarged to include some of the non-European avifauna, and to furnish a description or mention of species new to science. The following brief collation of the four volumes will serve to identify them: Vol. I. Première partie, 1820, *pp. cxv+439.* Vol. II. Seconde partie, 1820, *pp. 440–950.* Vol. III. Troisième partie, 1835, *pp. lxxxiv+305.* Vol. IV. Quatrième partie, 1840, *pp. 307–691.* Suppl. to part 2. Index to four parts.
The present copy has marginal notes and printed inserts of English synonyms by a former owner.

1824–41. Monographies de mammalogie, ou Description de quelques genres de mammifères, dont les espèces ont été observées dans les différens musées de l'Europe. Ouvrage accompagné de planches d'ostéologie, pouvant servir de suite et de complément aux notices sur les animaux vivans, publiées par M. le baron G. Cuvier, dans ses Recherches sur les ossemens fossiles. *2 vols. 12 pts. 4to. illust. 71 pl. Paris and Amsterdam.*

1833–50. Fauna Japonica; sive, Descriptio animalium, quae in itinere per Japoniam, jussu et auspiciis superiorum, qui summum in India Batava imperium tenent, suscepto, annis 1823–30 collegit, notis observationibus et adumbrationibus illustravit P. F. de Siebold. *5 vols. folio. pl. See also* SIEBOLD, P. F. VON. *Lugduni Batavorum.*

****** and LAUGIER DE CHARTROUSE,** MEIFFREN.

1838 [1820–39]. Nouveau recueil de planches coloriées d'oiseaux, pour servir de suite et de complément aux planches enluminées de Buffon, . . . 1770, d'après dessins de Huet et Prêtre. *5 vols. in 7. folio.* Text. Vol. I, *pp. (6)+(304)+(4)+(296).* Vol. II, *pp. (4)+(324)+(4)+(402).* Vol. III, *pp. (4)+(326)+109 (table of pl.).* Plates. Vol. I, *150 pl. (col.).* Vol. II, *150 pl. (col.).* Vol. III, *150 pl. (col.).* Vol. IV, *150 pl. (col.). Paris.*

This fine treatise, with its remarkable colored illustrations, was intended as a supplement to Buffon's *Planches Enluminées.* It was issued in 102 *livraisons,* between August 1820 and January 1839. The present copy has the full number of plates (600) with text, and the *Tableau Méthodique,* pp. 1–109. Laugier's share of the work is not clear apart from the fact that many of the specimens described are from his collection; Temminck is to be credited with all nomenclature; the *Prospectus* of the work is from the pen of Cuvier. The

[**TEMMINCK**, C. J. (*contd.*)]

page of Postscript by Temminck is in *livraison* 101 and is dated August 30, 1836. Zimmer (*Ayer Catalogue*) draws attention to many irregularities throughout the work, not only in the general text but in the *Tableau Méthodique*. The present copy lacks the *Prospectus* which is furnished by the following title.

1838 [**1820–?**]. Nouveau recueil de planches coloriées d'oiseaux, pour servir de suite et de complément aux planches enluminées de Buffon, etc. *3 vols. 4to.* Vol. I, *pp. 11+(1)+(111). 43 pl. (col.).* Vol. II, *pp. (114). 50 pl. (col.).* Vol. III, *pp. (128). 53 pl. (col., 1 fold.).* *Paris.*

The copy in hand has the rare Cuvier's *Prospectus* but only the descriptive text (pp. 353) and 146 of the 600 plates that accompany the complete edition of 1838 (1820–39) fully described in the present Catalogue.

1842. Atlas des oiseaux d'Europe d'après C. J. Temminck et dessinés par J. C. Werner. *See* WERNER, J. C.

TENNENT, JAMES EMERSON [1804–69].

1859–60. Ceylon. An account of the Island. *2 vols. 8vo.* *London.*

Vol. II (pp. 127–307) of this classic history is largely devoted to zoology; pp. 163–80 give an account of the birds.

1861. Sketches of the natural history of Ceylon; with narratives and anecdotes illustrative of the habits and instincts of the mammalia, birds, reptiles, fishes, insects, &c., including a monograph of the elephant. *8vo. pp. xxiii+500. 10 pl. 72 figs. index.* *London.*

A portion of the author's original work, *Ceylon. An account of the Island*, etc., 1859–60, republished in an extended form. The portion devoted to a description of the avifauna will be found in Chap. VIII, pp. 241–70. There are, also, two lists of birds, one, the birds of Ceylon, the other, of those species peculiar to the island.

1867. The Wild Elephant . . . in Ceylon. *8vo. pp. 19+198. 3 pl. and text illust.* *London.*

This naturalist was in his day the principal authority on the natural history of Ceylon. The library copy is a presentation volume with his autograph.

TENNESSEE ORNITHOLOGICAL SOCIETY.

1917. Preliminary List of the birds of Tennessee. *Nashville.*

TENNEY, ABBY A.

1866. Natural History of Animals. *See* TENNEY, SANBORN.

TENNEY, SANBORN [1827–77].

1865. Natural history; a manual of zoology for schools and colleges. *8vo. pp. 11+540. 539 figs. index.* *New York.*

Intended to give a general idea of the animal kingdom. The present copy is a presentation, with a letter from the author inserted.

**** and **TENNEY**, ABBY AMY (GOVE).

1866. Natural history of animals. Containing brief descriptions of the animals figured on Tenney's Natural history tablets. *8vo. pp. 8+261+29. front. 520 figs. append. index.* *New York.*

The seventh edition of this popular work.

1875. Elements of zoölogy. A text-book. *8vo. pp. 12+503. 753 figs. index.* *New York.*

TERMÉSZETRAJZI FÜZETEK. *Budapest.*

1877–1902. Continued as Budapest—Magyar Nemzeti Múzeum; Annales Historica-Naturales. (Articles are in Hungarian, German, French, Latin, English, or Italian.)

TERNIER, LOUIS.

1922. Nos oiseaux de mer de rivière et de marais; la sauvagine en France. [With a preface by E. Oustalet.] *4to. pp. 15+523. 1 pl. 125 text-figs. index.* *Paris.*

The author groups the sea, river, and marsh birds under the convenient name of 'La Sauvagine', of which about 160 species visit France annually. These are carefully described and depicted. The first edition was published in 1897; the above (second edition) is a reprint identical with the first issue.

**** and **MASSE**, FERNAND.

n.d. Les canards sauvages et leurs congénères. *8vo. pp. 22+752. illust.* *Paris.*

A systematic description of wild ducks, geese, and allied forms. The book is essentially a hunter's manual, with elaborate accounts of the implements employed in France for killing birds. The cuts are not very good. The copy in hand is a presentation from the senior author.

(**DE**) **TERRA**, P.

1911. Vergl. Anatomie des menschlichen Gebisses und der Zähne der Vertebraten. *8vo. pp. 468. 200 figs.* *Jena.*

An extensive monograph on the comparative odontology of vertebrates.

TERRA; Geografiska föreningens tidskrift.

1918–29. *Helsingfors.*

1888/9–1912 as Geografiska Föreningens Tidskrift.

Publishes an occasional paper on vertebrate zoology.

'TERRA NOVA', VOYAGE OF THE. 1910. *See* BR. MUS. (NAT. HIST.).

TERRAS, HILDA.

n.d. (The) story of a cuckoo's egg. *8vo. pp. 93. 24 pl. (7 col.).* *New York.*

TESDORPF, P. H.

1754. Versuch einer Beschreibung . . . Vögel . . . Colibri, etc. *4to.* *Leipzig.*

A rare volume, not in the *Cat. Br. Mus. (Nat. Hist.)*.

TEXAS ACADEMY OF SCIENCE.

1892–1912. Transactions. Nos. 1–12 (all pub.).

TEXAS UNIVERSITY.

1904–14. Scientific Series. Vols. 1–29 (all pub.).

THACKER, A. GORDON and **ELLIOT**, H. S. R.

1909. *See* HAGENBECK, C.

THAYER, ABBOTT H.

1909. Concealing-coloration in the animal kingdom. *See* THAYER, G. H.

THAYER, EVELYN and **KEYES**, VIRGINIA.

1913. Catalogue of a collection of books on ornithology in the library of John E. Thayer. *8vo. pp. 186.* Privately printed. *Boston.*

List of a small collection of books with occasional annotations.

THAYER, GERALD HANDERSON [1883–] and **THAYER**, ABBOTT H.

1909. Concealing-coloration in the animal kingdom; an exposition of the laws of disguise through color and pattern: being a summary of Abbott H. Thayer's discoveries, with an introductory essay by A. H. Thayer. *4to. pp. 19+260. 16 pl. (col.). 143 figs. 2 append. index.* *New York.*

An exposition of the theory that almost all animals possess a 'coloration that matches the background' and serves as a device for the concealment of the wearer, the illustrations being designed to demonstrate the theory. This work and theory have been both severely criticized and warmly defended.

THAYER, JOHN ELIOT [1862–]. **1913.** *See* THAYER, EVELYN and KEYES, VIRGINIA.

THÉEL, HJALMAR [1848–?1912].
1872. Beskrifning öfver hufvudets ben hos Anas Boschas. *8vo. pp. 30.* *Stockholm.*
Inaugural thesis of Upsala University.

1895. Sveriges Zoolog. Hafsstation Kristineberg. *Stockholm.*

THEOBALD, WILLIAM [1829–1908].
1876. Descriptive Catalogue of the Reptiles of British India. *4to. pp. 10+238+53. 5 pl.* *Calcutta.*
The writer discusses chiefly the means of discriminating between poisonous and harmless snakes.

THEOBALDUS EPISCOPUS.
[Before **1489**]. Phisiologus theobaldi episcopi de naturis duodecim animalium. *4to.* [O.] *Cologne.*
A very rare incunable. Hain* 15467, from the Osler Library. It is a versified, moral bestiary, ascribed to at least three ecclesiastics living in the eleventh or twelfth centuries. There are numerous printed and MS. editions of the poem, with its dialogues between members of 12 animal groups.

[**1502**]. Phisiologus Theobaldi episcopi de naturis duodecim animalium. Text in verse with commentary. *4to. illust.* (*Cologne.*)
This moral bestiary is assigned by Choulant to the twelfth century, and has been attributed to several different authors. [O. 5513.] In his comments on this very rare edition Osler says it is not among the 12 printings described by Choulant.

1928. Physiologus. Metrical Bestiary. Facsimile of the 1492 Cologne print. *12 chapters.* Translated by A. W. Rendell. *8vo. front. 12 photos. London.*
An excellently illustrated English rendering, with faithful reproductions of original folios.

THEOPHILUS CREMONENSIS DE FERRARIIS.
1493. Propositions ex omnibus Aristotelis libris philosophie, moralis, naturalis, etc. [ed. by Benedictus Soncinas]. *4to. pp. 56 and ff. 287.* *Venetiis.*
Hain 6997. A very early incunabulum (or incunable) furnishing, *inter alia*, an excellent review of Aristotle's zoology.

1493. Propositiones ex omnibus Aristotelis libris. J. and G. Gregorius. Perg. cover. Manuscript. *Venetiis.*
A unique manuscript copy. The scribe has not given the date of his own work. There is a printed edition in the Blacker Library of which the above is a written copy.

THESING, CURT EGON [1879–].
1911. Fortpflanzung und Vererbung. *8vo. pp. 96. illust.* *Leipzig.*

'THÉTIS' ET DE . . . L''ESPÉRANCE', Navigation autour du globe, etc.
1837. *2 vols. and atlas.* Histoire Naturelle par R. P. Lesson. *See* BOUGAINVILLE, *Baron* DE.

THEURIET, ANDRÉ [1833–1907].
[**1888**]. Song birds and seasons. *4to. pp. 16+200. 21 pl. 78 figs.* *Troy, N.Y.*

[**1894**]. Nos oiseaux. *4to. pp. 16+246. 41 pl.* (*col.*). *65 figs.* *Lille.*
A literary and poetical document on the birds of Belgium.

[**1895**]. Nos Oiseaux. *8vo. 41 col. pl. 110 figs. in text.* *Lille and Paris.*
One of several editions—a very well-illustrated copy.

THIENEMANN, AUGUST [1882–].
1925. (Die) Binnengewässer Mitteleuropas; eine limnologische Einführung. *8vo. pp. 255. illust.* *Stuttgart.*

THIENEMANN, FRIEDRICH AUGUST LUDWIG [1793–1858].
1845–56. Einhundert Tafeln colorirter Abbildungen von Vogeleiern; zur Fortpflanzungsgeschichte der gesammten Vögel. *2 vols. folio. 1 vol.* text. *1 vol.* plates. (All pub.). *pp. xvii+(5)+432. 100 pl. (10 col.).* *Leipzig.*
The present work is similar to the author's *Systematische Darstellung* etc., 1825–38, but is not confined to European species. It was issued in ten parts. An author's note on p. iii, dated October 1856, states that ill health interrupted the course of the work and that there are three plates yet unpublished and much of the text unwritten. The text (p. 432) stops short in the middle of a sentence and unfortunately was never completed.

THIENEMANN, J.
1910. Die Vogelwarte Rossitten der Deutschen ornithologischen Gesellschaft und das Kennzeichen der Vögel. *8vo. pp. 36. 4 pl.* *Berlin.*
An account of the observation station at Rossitten established by the German Ornithological Society, and of the birds seen there.

1928. Rossitten. Drei Jahrzehnte auf der Kurischen Nehrung. 2nd ed. *8vo. illust.* ? *Berlin.*

THIER. *See* TIER.

THIJSSE, JAC. P.
1904. Het vogeljaar; handleiding tot het leeren kennen der meest voorkomende Nederlandsche vogels. *folio. pp. 316. 14 col. pl. figs. in text.* *Amsterdam.*
A popular Dutch 'Bird Year', well illustrated by Keulemans and van Oort.

THILLAYAMPALAM, E. MUTHAMMAH [1895–].
1928. Scoliodon (the common shark of the Indian seas). *8vo. pp. 12+116. illust.* *Lucknow.*
A Columbia University thesis, published in India.

THOMAS, MICHAEL ROGERS OLDFIELD [1858–].
1879–1915. *See* GODMAN and SALVIN, Biologia Centrali-Americana.
The important contributions to zoological science made by this well-known naturalist generally appeared in serials and periodicals or were made in the form of joint authorship.

1881. *See* GUENTHER, A. C. L. G.

1886. *See* JOHNSTON, H. H.

1888. *See* BR. MUS. (NAT. HIST.).

1888. *See* JAMES, F. L.

1893. *See* HOSE, CHARLES.

1894–1900. *See* SCLATER, PHILIP LUTLEY.

1914–16. *See* OGILVIE-GRANT, WM. R., *ed.*

THOMAS, WILLIAM BEACH [1868–] and **COLLETT,** A. K.
1922. Birds through the year. *8vo. pp. 6+366. 24 pl.* (*col.*). *235 figs. index.* *London.*
Popular accounts of the arrival and departure of British birds throughout the year, with notes on their habits, nesting songs, etc.

THOMPSON, BENJAMIN FRANKLIN [1784–1849] and **WERNER,** CHAS. J.

1918. History of Long Island. 3rd ed. *3 vols. 8vo.* Vol. I, *pp. 50+538. 4 pl. 1 map.* Vol. II, *pp. (10)+649. 10 pl.* Vol. III, *pp. (10)+677. 6 pl. 1 map. index.* *New York.*

The portion devoted to the birds in this edition will be found in vol. III, pp. 282–91, and consists of a list embracing 372 species, those breeding on the island being denoted by an asterisk. It was prepared by L. Nelson Nichols, Dr. James E. De Kay having prepared the one in the second edition of 1843. The first edition, in one volume, appeared in 1839.

THOMPSON, D'ARCY WENTWORTH [1860–].

1895. A Glossary of Greek Birds. *8vo.* [O.]

The avian names and other captions are given in Greek capital letters, arranged in alphabetical order. The little treatise thus constitutes a very useful compendium of excerpts from Pliny, Aristotle, Aelian, Phile, and other classic writers on zoology. The writer was professor of zoology at University College, Dundee. There is a copy of this treatise in the E.S.W. Library, with London as the place of publication.

1913. On Aristotle as a Biologist, with a Proemium on Herbert Spencer. *8vo.* [O.]. *See also* ARISTOTLE, 1913. *Oxford.*

1917. On growth and form. *8vo. pp. 15+793. 408 figs. index.* *Cambridge.*

An important introduction to the study of organic form. The flight and form of birds are treated on pp. 24–7 and 673; and the shapes of eggs on pp. 652–60.

THOMPSON, EDWARD PETT.

1845. The note-book of a naturalist. *12mo. pp. 12 +275. T. of c.* *London.*

THOMPSON, ERNEST SETON (*surname changed*) [1860–].

1891. The birds of Manitoba. (*Proc. U.S. Nat. Museum*, vol. XIII.) *8vo. pp. 457–643. 1 map (fold.). bibliogr. index.* *Washington.*

A well-annotated list of the birds of the province—over 266 species and subspecies, and bibliography of the works consulted. *See also* SETON, E. THOMPSON.

THOMPSON, G. W. ST. CLAIR.

1928. Protection of Woodlands, etc. *8vo. pp. 225. illust.* *London.*

A valuable work on a subject that has a very important bearing on faunal life.

THOMPSON, JAMES MAURICE [1844–1901].

1885. By-ways and bird notes. *8vo. pp. 179. portr. T. of c.* *New York.*

1887. Sylvan secrets, in bird-songs and books. *8vo. pp. 4+139. T. of c.* *New York.*

THOMPSON, *Mrs.* JEAN MAY (born FOWLER) [1867–].

1922. Wild kindred. *8vo. pp. 14+251. 8 pl. T. of c.* *London.*

1922. Wings and pads. *8vo. pp. 14+251. 8 pl. T. of c.* *London.*

THOMPSON, WILLIAM [1805–52].

1849–56. The natural history of Ireland. *4 vols. 8vo.* Vol. I, *pp. 20+434. 2 indexes.* Vol. II, *pp. 11 +350. 2 indexes.* Vol. III, *pp. 7+491. append. 2 indexes.* Vol. IV, *pp. 32+516. portr. 9 figs. append. index.* *London.*

The first three volumes of this work are devoted entirely to a systematic description of the birds. It was the evident intention of the author to issue similar volumes on all the zoological groups. His death, however, defeated the project, but his notes were bequeathed to Robert Patterson who, with others, completed this most valuable contribution to natural science.

THOMPSON, WILLIAM EDGAR.

1925. Aunt Chloe and her birds. *8vo. pp. 11+ 118. 10 pl. (col.). T. of c.* *Lynchburg, Va.*

THOMSON, ALLEN [1809–84].

1877. The Development of the Forms of Animal Life. *8vo.* [O.] *London.*

Presidential Address of the British Assoc. Adv. Sc.

THOMSON, ARTHUR LANDSBOROUGH [1890–].

1910. Britain's birds and their nests. *4to. pp. 28 +340. 132 pl. (col.). index.* *London.*

The main reason for the publication of this work is (as stated in the preface) to furnish letterpress for George Rankin's admirable series of plates.

1911–13. The British Bird Book. *See* KIRKMAN, F. B. B.

1926. Problems of bird-migration. *8vo. pp. 15+ 350. 12 figs. append. index.* *London.*

Reading between the lines of this valuable contribution to the subject one realizes the magnitude of the problem, and the seeming futility of most speculations and theories. In connection with this treatise it would be well to read A. Wetmore's *The Migrations of Birds*, 1927. Although differing radically in character, the conclusion of both agree to an interesting extent.

1927. Birds; an introduction to ornithology. *12mo. pp. 7+256. index.* *London.*

A book for the general reader; it forms vol. 130 of the *Home University Library of Modern Knowledge.*

THOMSON, CHARLES WYVILLE [1830–82].

1877. The voyage of the 'Challenger'. The Atlantic; a preliminary account of the general results of the exploring voyage of H.M.S. 'Challenger' during the year 1873 and the early part of the year 1876. *2 vols. 8vo.* Vol. I, *pp. 29+424. 15 pl. 110 figs. T. of c. 4 append.* Vol. II, *pp. 14+396. 2 col. maps. 15 pl. 66 figs. 3 append. index.* *London.*

An abstract of the less technical portions of the author's journal, incorporated with some of the more novel observations by his colleagues, during the first year of the voyage of the *Challenger* (1873), and the early part of the fourth year (1876).

1878. The voyage of the 'Challenger'. The Atlantic, etc. *2 vols. 8vo.* *New York.*

The American edition of the original edition, London, 1877, and identical with it.

1880–95. Report on the Scientific Results of the Voyage of H.M.S. Challenger . . . during 1873–76. *40 vols. 4to.* *London.*

This monument to British seafaring naturalists is also a most valuable contribution to general vertebrate zoology. The volumes devoted to the faunae of the countries visited are written by men well known by students of biology. Among them, W. Turner wrote a paper on the bones of Cetacea, *pp. 45, 3 pl.*; an essay on the Green Turtle by W. K. Parker, *pp. 58, 13 pl.*; on Shore Fishes by A. Günther, *pp. 82, 32 pl.*; and Birds by P. L. Sclater, *pp. 166, 30 col. pl.* Special chapters on avian lore are contributed by the Marquis of Tweeddale (Birds collected in the Philippine Islands); on birds from the Admiralty Islands, by P. L. Sclater; from Fiji, Tongatabu, Api (New Hebrides), and Tahiti, by O. Finsch; from Ternate, Amboyna, and the Arrou (Aru) Islands, by T. Salvadori; from Cape York (Australia) and neighboring islands, by W. A. Forbes; from the Sandwich Islands, by P. L. Sclater; from Antarctic America, by P. L. Sclater and O. Salvin; and from the Atlantic Islands and Kerguelen Island, by P. L. Sclater. The *Steganopodes* and *Impenes* are described by P. L. Sclater and O. Salvin; the *Laridae*, by H. Saunders; and the *Procellaridae*, by O. Salvin. The collections of eggs are described by P. L. Sclater. Part 57 is devoted to Deep-Sea Fishes by A. Günther (1887), *pp. 65+335 and 73 pl.* Quite a few of these parts were published separately, and at least one (an extract) with an altered title, viz. *Deep-Sea Fauna of New Zealand*, by A. Hamilton, 8vo, 1896.

THOMSON, JOHN ARTHUR [1861–].

1892. Outlines of zoology. *12mo. pp. 14+641. 32 pl. index.* *New York.*

An excellent and popular manual for the use of students in the lecture-room, museum, and laboratory. It has had, deservedly, many editions. The present, *editio princeps*, was published both in Edinburgh and New York; the second in 1895, a third in 1899, a sixth in 1914, another in 1919, still another in 1920, and so on.

******** and **NEWBIGIN,** MARION.

1895. Outlines of zoology. 2nd ed. *12mo. pp. 18+820. 266 figs. append. index.* *Edinburgh.*

1896. The Study of Animal Life. *pp. 12+375. 71 figs.* *New York.*

An excellent, semi-popular work, one of *Scribner's University Extension Manuals.*

1910. *See* MACGILLIVRAY, WILLIAM.

1910. Threads in the web of life. *See* THOMSON, MARGARET R.

1914. Outlines of zoology. 6th ed. *12mo. pp. 21+855. 420 figs. append. index.* *Edinburgh.*

1915. (The) wonder of life. 2nd ed. *8vo. pp. 21+658. 23 pl. (col.). 76 figs. index.* *London.*

An unconventional introduction to Natural History and Biology.

1917. The study of animal life. 4th ed. *8vo. pp. 16+477. 124 figs. append. index.* *London.*

A popular work that ran through many editions, the first in 1892.

1919. Outlines of zoology. *8vo. pp. 21+855. 420 figs. append. index.* *Edinburgh.*

A reprint of the 1914 edition.

1920. Outlines of Zoology.

1921. Natural history studies; an anthology from the author's own works. *12mo. pp. 8+244. 30 figs. T. of c.* *New York.*

1922. The outline of science, a plain story simply told. *4 vols. 4to.* Vols. I–IV, *pp. 1,220. 40 pl. (col.). 800 figs. bibliogr. index.* *New York.*

Edited by the author.

1923. The Biology of Birds. *8vo. pp. 11+436. 9 pl. 59 figs. bibliogr. index.* *London.*

An important work, illustrating biological ideas about a particular group of animals. The treatise includes such biological concepts as adaptation, struggle, sex, heredity, variation, selection, and behavior.

1926. The new natural history. *3 vols. 8vo.* Vol. I, *pp. 10+384. 16 pl. (col.). 480 figs. index.* Vol. II, *pp. 10+385–768. 16 pl. (col.). 418 figs. index.* Vol. III, *pp. 10+769–1152+14. 15 pl. (col.). 430 figs. 2 indexes.* *New York.*

THOMSON, MARGARET R. and **THOMSON,** J. A.

1910. Threads in the web of life. *12mo. pp. 8+198. 72 figs.* *London.*

A volume in the series *Readable Books in Natural Knowledge.*

THOMSON, M. E. **1896.** *See* BREHM, A. E.

THORBURN, ARCHIBALD [1860–].

1883–8. *See* SWAYSLAND, WALTER.

1885–97. *See* LILFORD, T. L. P.

1918–19. British birds. *4 vols. 4to.* Vols. I and II, 4th ed.; vols. III and IV, 3rd ed. Vol. I, *pp. viii+142. 20 pl. (col.).* Vol. II, *pp. vi+71. 20 pl. (col.).* Vol. III, *pp. vi+86. 20 pl. (col.).* Vol. IV, *pp. vii+115. 22 pl. (col.). index.* *London.*

A series of beautiful and accurate plates (by the author) of British birds accompanied by short accounts of each species. The first edition was issued in 1915–16. The series in hand has two additional plates of rare warblers that have recently visited the British Islands, apparently for the first time, as well as some drawings of subspecies and racial forms that have lately aroused much interest among ornithologists. Except for short accounts of these, the text of the first edition remains unchanged.

1919. British Birds, etc. *4 vols. 4to. 82 col. pl. 500 text-figs.* *London.*

A complete set of the fifth edition.

1919. A naturalist's sketch book. *4to. pp. 8+71. 60 pl. (24 col.). T. of c.* *London.*

1920–1. British Mammals. *2 vols. 4to. 50 col. pl. text-figs.* *London.*

These beautiful plates, representing the best-known mammals inhabiting the United Kingdom, are reproductions of this artist-author's best brush and pencil work.

1923. [Fifty-eight] Game birds and wild-fowl of Great Britain and Ireland [with letterpress]. *folio. pp. 7+78. 30 pl. (col.). index.* *London.*

1925–6. British birds. Vol. 1, *pp. 12+176. 48 pl. (col.).* Vol. 2, *pp. 9+129. 48 pl. (col.).* Vol. 3, *pp. 10+167. 48 pl. (col.).* Vol. 4, *pp. 10+154. 48 pl. (col.). index.* *London.*

To avoid overcrowding of the colored figures (in previous editions) the number of plates has been increased from 80 in the first edition to 192 in the present printing.

THOREAU, HENRY DAVID [1817–62] and **ALLEN,** F. H.

1925. Thoreau's bird-lore; being notes on New England birds from the Journal of H. D. Thoreau. *12mo. pp. 9+452. 8 pl. 1 map. append. index.* *Boston.*

Excerpts from the *Journal*, with an appendix in which is given an index to the bird matter contained in Thoreau's other works. The map is furnished with an index enabling admirers of Thoreau to locate and identify his favorite resorts.

THORHALLESEN, E. V.

1914. Beskriv. Missionerne Grønlands Søndre Distrikt. *Copenhagen.*

An interesting excerpt from *Grønland. Selsk.*, Skrift I, ed. by L. Bobee.

THORNDIKE, E. L.

1911. Animal Intelligence. *New York.*

THRUPP, J. GODFREY.

1888. The Unknown Horn of Africa, etc. *See* JAMES, F. L.

THUNBERG, CARL PEHR [1743–1928].

1822. Fauna Surinamensis . . . quam praeside C. P. Thunberg . . . respondente Gabriel Daniel Collin. *8vo. pp. 8+2.* *Upsaliae.*

A rare inaugural thesis from the collection of Dr. Chas. W. Richmond and now in the Blacker Library. There is a copy also in the Osler Library. Thunberg acted as editor of a scientific series (most of them Uppsala inaugural theses over whose discussion he presided) descriptive of numerous zoological areas. The theses are all important, fundamental, and rare monographs, depicting animal life mainly in Middle America, Brazil, French and Dutch Guiana, China, Guinea, Japan, and Australia.

1822. Fauna Novae Hollandiae . . . quam praeside C. P. Thunberg . . . respondente John Axel Huss. *8vo. pp. 8.* *Upsaliae.*

1823. Fauna Gvineensis . . . quam praeside C. P. Thunberg . . . respondente Matthias Kalm. *8vo. pp. 9.* *Upsaliae.*

[**THUNBERG,** C. P. (*contd.*)]

1823. Illustratio animalium Sveciae rariorum. Respondente L. G. Tigerhjelm. *8vo. pp. 4+10. illust.* *Upsaliae.*

1823. Fauna Americae miredionalis [*sic*] . . . praeside C. P. Thunberg . . . respondente Fredericus Melch. Rystedt. *3 partes. 8vo. pp. 11+1. Pars prima.* *Upsaliae.*

1823. *Pars secunda.* Respondente Joh. Nath. Gestrin. *pp. 9+1.*

1823. *Pars tertia.* Respondente Jonas Mellander. *pp. 11+1.*

These three tractates, covering the fauna of South and Middle America, form important and rare lists; from the library of Dr. Chas. W. Richmond.

1823. Fauna chinensis . . . quam praeside C. P. Thunberg . . . respondente Petrus Magnus Acksell. *8vo. pp. 7+1.* *Upsaliae.*

1823. Fauna brasliensis [*sic*] . . . quam praeside C. P. Thunberg . . . respondente Carolus Henricus Ekstrand. *8vo. pp. 9+1.* *Upsaliae.*

From the library of Dr. Chas. W. Richmond.

1823. Fauna cayanensis . . . quam praeside C. P. Thunberg . . . respondente Andr. Kjeller. *8vo. pp. 12.* *Upsaliae.*

One of many inaugural theses on natural history of the University of Uppsala, giving the results of work due to the suggestion and help of the celebrated professor of botany and medicine, C. P. Thunberg. The present useful tract is from the Osler Library.

1824. Canis species, Scandinaviam inhabitantes, quas . . . praeside C. P. Thunberg . . . respondente Carolus Reinh. Stjernsten. *8vo. pp. 8+2. 2 figs.* *Upsaliae.*

This inaugural thesis was largely the work of that famous, versatile professor of botany who was responsible for many treatises on general zoology as well as on vertebrates. The tractate in hand is from the *Bibliotheca Osleriana.*

THÜNGEN, C. E. VON.

1876. Das Rebhuhn dessen Naturgeschichte, Jagd und Hege. *8vo. pp. 10+125. T. of c.* *Weimar.*

On the classification, distribution, natural history, aviculture, and hunting of the various species of *Perdrix.* A rare tract from the Cabanis-Reichenow collection. Not in the *Cat. Br. Mus.* (*Nat. Hist.*).

THURGAUISCHE NATURFORSCHENDE GESELLSCHAFT.

1857–*date.* Mitteilungen.

THWAITES, REUBEN GOLD.

1904. A brief history of Rocky Mountain Explorations with especial reference to the expedition of Lewis and Clark. *pp. 13+276. illust.* *New York.*

1904–7. Early western travels, 1748–1846, etc. *32 vols. illust.* *Cleveland.*

The journals and accounts of 35 individuals, many of whom were naturalists recording their discoveries, are given in this voluminous and useful record. The famous Lewis and Clark exploration party is separately treated by the editor in another publication.

TIBB-I-ASPĀN.

[*ca.* **1812**]. Treatise on Diseases of Horses. *8vo. no p. index.* Anon. Red and black caligraphy.

Hindustani manuscript collected for the Blacker Library by W. Ivanow in North India.

TICEHURST, NORMAN FREDERICK [1873–].

1909. A history of the birds of Kent. *8vo. pp. 56 +568. 24 pl. map.* *London.*

1912. A hand-list of British birds. *See* HARTERT, E. and others.

1919–24. *See* WITHERBY, H. F.

1925. *See* DENNIS, *Rev.* R. N.

TIDSSKRIFT FOR FISKERI.

1866–73. *8vo.* Vols. 1–7 (all pub.). *Kjøbenhavn.*

TIDSSKRIFT FOR FUGELVENNER.

[Journal for Bird Lovers.] Udgivet af Foreningen for Fuglevenner. Redigeret af V. Wiese, Aarhuss.
1897–1930? Aargang 1–34? [*Denmark.*]

TIDSSKRIFT FOR NATURVIDENSKABERNE. *Copenhagen.*

1822–8. Vols. 1–5 (all pub.).

TIERREICH, DAS. 1897–1930. *See* DEUTSCHE ZOOLOGISCHE GESELLSCHAFT.

TIERWELT (DIE), MITTELEUROPAS.

Edited by P. Brohmer. *Leipzig.*

TIERWELT. Zeitschrift für Ornithologie, Geflügel und Kaninchensucht. Zentralorgan und Eigenthum der Schweizerischen Ornithologischen Gesellschaft und deren Sektionen.
Jahrgang I (**1890**)–XXXIX (**1930**). *folio. illust.* *Aarau.*

The title of this excellent, well-illustrated, popular, and long established Swiss periodical (often containing serious papers on ornithology) sufficiently explains its object.

TIERWELT DEUTSCHLANDS, DIE, u. d. angrenzenden Meeresteile nach ihren Merkmalen u. n. ihrer Lebensweise.

1925–*date.* Hrsg. v. F. Dahl. Teil 1–17. *Jena.*

When complete this work will rank among the best of the recent semi-popular treatises on middle European faunal literature. To 1929 17 parts have been issued.

TIFLIS. Kavkazskii Musei i Publichnaya Bibliotheka.

1899–? Die Sammlungen des Kaukasischen Museums; im Vereine mit Special-Gelehrten bearbeitet. Published in Russian and German. *Tiflis.*

TIJDSCHRIFT OVER LAND- EN TUINBOUWKUNDE EN VERDERE NATUURWETENSCHAPPEN. 1866–70. *Antwerp.*

TIJDSCHRIFT VOOR NATUURKUNDIGE WETENSCHAPPEN EN KUNSTEN. 1810–12? *Amsterdam.*

TIJDSCHRIFT VOOR NATUURLIJKE GESCHIEDENIS EN PHYSIOLOGIE.
1834–45. *Amsterdam, Leyden.*

TIJDSCHRIFT DER NEDERLANDSCHE DIERKUNDIGE VEREENIGING. 1876. *Rotterdam.*

TIMEHRI. (Royal Agricultural and Commercial Society of British Guiana.)

1882–6.

1887–99. New series.

1900–2.

1911–*date.* Series 3.

TIMINS, DOUGLAS.
1929. A Traveller of the Sixties. *8vo. pp. 308. portr.* *London.*
This volume contains extracts from the diaries of Frederick James Stevenson of travels in Brazil, Peru, Argentina, Patagonia, Chile, and Bolivia during 1867–9. Edited with a memoir. It has numerous descriptions of the flora and fauna of the countries visited. Autographed copy presented to the Compiler.

TIMPEL, MAX.
1912. Die Vögel von Erfurt und Umgegend. *8vo. pp. 98. T. of c.* *Erfurt.*
Author's reprint.

TIMS, H. W. M. **1907.** *See* BR. MUS. (NAT. HIST.). Voyage 'Discovery'.

TĪMŪR-MĪRZĀ QĀJĀR, *Prince.*
1890. Bāz-Nāma-I-Nāṣirī.
A well-known treatise on falcons and hunting-birds in general. It has been reprinted and translated many times and is one of the standard works on falconry. The author lived and wrote in the middle of the nineteenth century. The present volume is the very rare lithographed edition printed in Bombay.

TIRABOSCO, A.
1803. L'uccellagione. *8vo.* *Parma.*
Lessons in the gentle art of snaring birds, still carried on almost as vigorously as ever in Italy and elsewhere after a lapse of a century and a quarter. It is remarkable that there are any song-birds left in South Europe.

TIRANT, GILBERT.
1879. Les oiseaux [352 species] de la Basse-Cochinchine. *8vo. pp. 73–174. bibliogr. 2 indexes.* *Paris.*
Author's excerpt. Annotated list of the birds of the peninsula of Cochin China collected by the author, with a table of Annamite names of birds. More than 350 species are recorded, none new. The present copy is from the Godman Library.

TISCHLER, FRIEDRICH.
1914. (Die) [305 species of] Vögel der Provinz Ost-Preussen. *4to. pp. 331. illust. index.* *Berlin.*
A systematic description of 305 varieties of birds found in East Prussia. A bibliography and check-list are added.

TODD, ROBERT BENTLEY [1809–60].
1835–59. The Cyclopaedia of Anatomy and Physiology. *5 vols. 8vo. illust.* *London.*
One of the best of its kind, containing much of interest to the zoologist. Sir Richard Owen wrote the caption Aves.

1836–52. (The) cyclopædia of anatomy and physiology. *4 vols. 8vo.* Vol. I, *pp. 6+813. 436 figs. index.* Vols. II–IV, *pp. 18+3587. 1,930 figs. 3 indexes.* *London.*
A four-volume edition of 4,400 pages, illustrated by means of 2,366 text-figures.

TOKUGAWA INSTITUTE OF BIOLOGICAL RESEARCH. *Tokyo.*
1924–*date.* Studies.

TOKYO. Annotationes Ornithologicae Orientalis.
1927. Vol. 1, No. 1.
1928. No. 2.

TOKYO. Imperial Museum. Natural History Department.
1904. Proceedings.

TOMLINSON, H. M. [1873–].
[1924]. Tidemarks: some records of a journey to the beaches of the Moluccas and the forest of Malaya, in 1923. *8vo. pp. 6+311. front.* *London.*
An interesting diary of travel and adventure in the Far East, with many descriptions of animal life, especially of birds.

TOPSELL, EDWARD [–1638].
1607. The historie of foure-footed beastes, describing the true and lively figure of every beast, with a discourse of their severall names, conditions, kindes, vertues . . . collected out of all the volumes of Conradus Gesner and all other writers to this present day. *folio. pp. 42+758+12. 1 pl. illust.* *London.*
The original edition of a famous work, with a facsimile of the 'Picture of the vulgar Bugill'. This treatise passed through several editions.
Considerable difference of opinion exists as to the scientific value of Topsell's writings or, rather, compilations, but, then, he did not pretend to much originality.
From the catalogue of a dealer: 'Hazlitt, *Handbook*, p. 612, No. 4, says: "Topsell reflected the credulity of his age, but his exhaustive account of the prevailing zoological traditions and beliefs give his work historical value." This book was the great picture book of the seventeenth century, and is consequently nearly always tattered, dog-eared and imperfect. We endeavour to give an idea of the contents: The "Satyre" is included in the ape family (pp. 10–13); we also have the "Sphynx" (pp. 14–15); "Of the Lamia" (pp. 352–355); "Of the Unicorn" (pp. 551–557); "Of the Cockatrice" (pp. 677–681); "Of the Dragon" (pp. 701–705); "Of the winged-Dragon" (pp. 705–716); "Of the Serpents called Elephants" (p. 718); "Of the Hydra" (pp. 735–736); "Of the Sea-Serpents" (pp. 759–761); p. 727 contains an account of the toad-stone.'
The *editio princeps* is not listed in the *Cat. Br. Mus.* (*Nat. Hist.*).
The Blacker Library copy, almost perfect in every respect, is bound by Rivière.

1608. The historie of serpents; or, The second booke of living creatures; wherein is contained their divine, naturall, and morall descriptions. *folio. pp. 10+316+8.* *London.*
The 'second booke' is generally bound with *The Historie of Foure-footed beastes*, 1607, although the latter has a separate title-page and preface.

1658. (The) history of four-footed beasts and serpents . . . Collected out of the writings of Conradus Gesner and other authors. Whereunto is now added, The theater of insects . . . by T. Muffet . . . The whole rev., cor. and inl. with the addition of two useful physical tables, by J[ohn] R[owland]. *2 vols. paged continuously. folio pp. 14+1130. illust.* *London.*
Editio altera; the first issued in 1607–8.

TORELLE, ELLEN [1870–].
1912. Plant and animal children. *12mo. pp. 4+230. 335 figs. index.* *Boston.*

TORI NIHON TORIGAKU KWAI. [English title: Tori, *The Aves.* Bulletin of the Ornithological Society of Japan.
[1915–30]. Semi-annual. *8vo.* *Tokio.*
The Japanese title-page (4th page of cover) is variously decorated in black and white; sometimes in colors.
Occasionally a paper (beginning with No. 8) has its title-page and table of contents printed in English. There are numerous illustrations, black and white and colored.
More in detail:
Vol. I, No. 1, May 26, 1915; No. 2, Dec. 10, 1915; No. 3, Dec. 31, 1916; No. 4, April 15, 1917; No. 5, Dec. 7, 1917.
Vol. II, No. 6, May 31, 1918; No. 7, Dec. 31, 1918; No. 8, July 21, 1919; No. 9, April 14, 1920; No. 10, Dec. 1920→
Among the contributors to this excellent journal are the names of well-known Japanese zoologists, e.g. I. Ijima, S. Ichida, N. Kuroda, A. Oka, A. Izuka, and others. Each number of *Tori* has 40–80 pp.

TORNIER, GUSTAV.
1828–45. *See* EHRENBERG, C. G.

1893–*date.* *See* DEUTSCH-OST-AFRIKA.

1896. Reptilien und Amphibien (Kriechthiere). *4to. pp. 13+164. pl. illust. text.* *Berlin.*
This monograph is based mainly on the author's investigations of reptilia and amphibia from (former) German East Africa.

1909. *See* BRAUER, AUGUST.

TORQUAY NATURAL HISTORY SOCIETY. *Torquay, England.*
1909/14–*date*. Transactions and Proceedings.

TORREY, BRADFORD [1843–1912].
[**1889**]. A rambler's lease. *8vo. pp. 4+226. index.* *Boston.*
The title is a good example of this accomplished naturalist's mixture of sentimental and scientific attainments. It furnishes an instructive account of his ramblings about New England in search of natural history subjects, birds forming a considerable item.

******** and **MAYNARD,** C. J.
[**1890**]. Das Brüllen der amerikanischen Rohrdommel. *8vo. pp. 25. illust. n.p.*
This interesting essay on the drumming of the American Bittern was translated by Paul Leverkühn and published in the *Ornitholog. Monatsschrift* for 1890.

[**1892**]. The foot-path way. *8vo. pp. (4)+245. index.* *Boston.*

1903. The clerk of the woods. *12mo. pp. 8+280. index.* *Boston.*
First edition.

[**1913**]. Birds in the bush. *8vo. pp. (6)+300. index.* *Boston.*
Popular essays on birds observed by the author round Boston, in the White Mountains, New Hampshire, and Lake Memphremagog, Canada. The first edition was issued in 1885.

[**1913**]. Field-days in California. *8vo. pp. (12)+235. 9 pl. index.* *Boston.*

TOTA KAHANI; [or Indian folklore story of a parrot]. **1920.** *See* ANONYMOUS.

TOTA MAINA; [or Indian folklore tales of the parrot and the Mynah]. **1925.** *See* ANONYMOUS.

TOULOUSE. Musée d'Histoire Naturelle.
1879–92? Archives.

TOULOUSE. Station de Pisciculture et d'Hydrobiologie.
1903–9. Bulletin.

TOURNEFORT, JOSEPH PITTON DE [1656–1708].
1741. A voyage into the Levant. To which is prefix'd the author's life [by Lauthier] . . . also his Elogium, pronounc'd by M. Fontenelle . . . Adorn'd with an accurate map of the author's travels, not in the French edition. 2nd English ed. *3 vols. 8vo.* *London.*
The English translation, by John Ozell, of the rare (French) *editio princeps* of 1717. It gives a full account of the Eastern travels of a noted naturalist.

TOUSSENEL, ALPHONSE [1803–85].
1853. L'esprit des bêtes. Le monde des oiseaux; ornithologie passionnelle. *8vo. pp. 10+484.* Pt. I (all pub.?). *Paris.*
A treatise on the sociological and psychic relations of birds. Only the first part, taking up about half the avian genera, has been seen by the Compiler. Not in the *Cat. Br. Mus.* (*Nat. Hist.*).

TOWER MENAGERIE, etc. 1829. *See* BENNETT, E. T.

TOWNSEND, CHARLES HASKINS [1859–], *ed.*
[**1912–25**]. The U.S.S. 'Albatross' in Lower Californian seas. Cruise of 1911. [Fifteen] Articles collected from the American museum Bulletin and Novitates, and from Zoologica, of the years 1912–1925, by C. H. Townsend, J. A. Grossbeck, H. L. Clark, R. C. Osburn, J. T. Nichols, M. C. Dickerson, K. P. Schmidt, A. L. Treadwell, C. B. Wilson, M. J. Rathbun, C. R. Shoemaker. *8vo. pp. 7+502. 46 col. pl. 4 maps. 129 figs. T. of c.* *New York.*

TOWNSEND, CHARLES WENDELL [1859–].
1905. (The) birds of Essex County, Massachusetts. (Nuttall Ornithological Club. Memoir, No. 3.) *8vo. pp. 352. front. 1 map. bibliogr. index.* *Cambridge, Mass.*
A systematic and well-annotated list of 321 species and subspecies, of which the author remarks that he had seen 215 alive, and had examined specimens from the County of all but two.

******** and **ALLAN,** G. M.
1909. List of the birds of Labrador. *See* GRENFELL, W. T. Labrador, Appendix V.

1923. Pourtraits of celebrated Avian Historiens lately known as Ornithologici, etc. By Carolus Adexitumville, Loudon, 1634. *27 photos. 26 ll.* Shown at the dinner of the A.O.U. in Cambridge [Mass.], October 1923. Title-page printed, the remainder typescript. *12mo.*
This is a whimsical collection (with a faked title-page) of photographs portraying well-known American ornithologists garbed in ancient or foreign clothing, with humorous descriptive verse. Although intended only for an evening's entertainment the facial portraits are good and the doggerel accompanying them serves to point out one or more scientific activities in which the originals have been for many years seriously engaged. Presented to the E.S.W. Library of Ornithology, McGill University.

TRADE MARKET, THE.
1910. Supplement to Bird Notes.
Trade supplement of an ornithological journal and generally bound with it.

TRADESCANT, JOHN [1608–62].
1656. Museum Tradescantianum; or, A collection of rarities preserved at South-Lambeth neer [*sic*] London. *12mo. pp. (20)+179+(4). front. 2 pl. 2 portr.* *London.*
An account of this extremely interesting collection—including a stuffed 'Dodar'. It is the first English Museum of which we have any detailed knowledge or printed account. It owed its inception not to an Englishman but to the enterprise of a Hollander and his son who had settled in England during the reign of James I. The little volume has now become very scarce owing to the fact that the two portraits (perfect in the present copy) of both father and son were engraved by Hollar. This fact is well known to print collectors who have plundered most of the copies of these impressions.

TRAFTON, GILBERT HAVEN [1874–].
1910. Methods of attracting birds. Published under the auspices of the National association of Audubon societies. *8vo. pp. 15+171. 8 pl. 21 figs. append. index.* *Boston.*

[**1916**]. Bird friends; a complete bird book for Americans. *8vo. pp. 18+330. 5 pl. (col.). 24 pl. index.* *Boston.*

TRANSACTIONS OF ACADEMY OF SCIENCE OF ST. LOUIS. 1856/60–*date*. *See* ACADEMY OF SCIENCE OF ST. LOUIS.

TRANSACTIONS OF THE CAGE-BIRD CLUB. Edited by W. H. Betts and Thos. Marshall.
1893–6. (All pub.) *12mo.* *London.*
This was a useful little magazine devoted to birds in captivity.

TRANSACTIONS OF THE CHICAGO ACADEMY OF SCIENCES. 1867–70. *See* CHICAGO.

TRANSACTIONS OF THE FOREIGN BIRD CLUB. *See* BIRD NOTES (ENGLAND).

TRANSACTIONS OF THE INTERNATIONAL ORNITHOLOGICAL CONGRESS. *See* CONGRESS, PROCEEDINGS OF THE INTERNATIONAL, etc., *also* ORNIS.

TRANSIT-OF-VENUS EXPEDITION, 1874–5.

1875. Ornithology [of Kerguelen Island]. *See* COUES, ELLIOTT.

1879. *See* ROYAL SOCIETY OF LONDON.

TRANSUNTI D. (R.) ACCADEMIA DEI LINCEI, ROMA. 1876–*date*. *See* (R.) ACCADEMIA DEI LINCEI, ROMA.

'TRAVAILLEUR', FRENCH STEAMER. **1885.** *See* 'TRAVAILLEUR' AND 'TALISMAN'.

'TRAVAILLEUR' AND 'TALISMAN'.

1888–1906. Expéditions scientifiques . . . pendant les années 1880–3, sous la direction de A. Milne Edwards, etc. *8 vols. 4to.* *Paris.*

These celebrated voyages were productive of much scientific literature on the natural history of the areas visited and examined. Zoology was mostly vertebrate. Fishes were described by L. Vaillant in the volume of *pp. 406, 28 pl.*

TRAVAUX DU LABORATOIRE DE ZOOLOGIE GÉNÉRALE, ALGIERS. 1920–*date*.

TRAVAUX DE LA SOCIÉTÉ ORNITHOLOGIQUE DE KIEF du nom de K. Th. Kessler, sous la rédaction du président de la société V. M. Artobolevsky. Kief, Russia. The titles in both Russian and French, the text in Russian only.

1913. Tome I, Livraison 1. *8vo. pp. 219.* (All pub.?)

A note on the cover of the first number says that tome 1, livraison 2, 1914, 'is in the press'. It has not been seen by the Compiler. The initial issue of this valuable contribution to scientific ornithology was established in memory and honor of Professor Kessler, the founder of the Society. It contains a paper by the Russian zoologist, B. Dombrowski, on the birds of Colchis, Anzarien, and neighboring localities, and two essays by E. A. Charlemagne. Like other Russian periodicals devoted to science it was swept aside by the World War.

TRAVELLER AND NATURALIST. *See* CALIFORNIA TRAVELLER AND NATURALIST.

TRAVIÉS, EDOUARD.

[*c.* **1857**]. [Les oiseaux; illustrations.] *folio. 79 col. pl.* *Paris.*

Some of the plates are simply wonderful, and are among the best portraits of birds ever painted. Some of them bear the date 1857. The legends on the plates require revision, e.g. the Crowned African Crane, or *L'Oiseau royal* of Brisson, is named *Ardea pavonia*.

TREAT, *Mrs.* MARY LUA ADELIA (born DAVIS) [1835–].

1885. Home studies in nature. *12mo. pp. 243. 67 figs. index.* *New York.*

(A) TREATISE ON DOMESTIC PIGEONS; comprehending all the different species known in England . . . carefully compiled from the best authors.

1765. Anonymous. *8vo. pp. 16+144. illust.* *See* ANONYMOUS, p. 198. *London.*

This is the *Columbarium* of Moore amplified . . . by a practical fancier. There is a second copy in the Library.

TREDERN, LUDOVICUS SEBASTIANUS AB, *Count.*

1808. Dissertatio inauguralis medica sistens ovi avium historiae et incubationis prodromum [etc.]. *8vo. pp. 4+16. illust.* *Ienae.*

TREGARTHEN, JOHN COULSON [1854–].

1904. Wild life at the Land's End; observations of the habits and haunts of the fox, badger, otter, seal, hare, and of their pursuers in Cornwall. *8vo. pp. 12+236. 25 pl. glossary.* *London.*

TREITSCKE, FRIEDRICH [1776–1842].

1840. Naturhistor. Bildersaal d. Tierreichs. *4 vols. 180 col. pl.* *Pesth.*

A remarkable collection of colored animal portraits.

TREMBLEY, ABRAHAM [1710–84]. **1750.** *See* RÉAUMUR, R. A. F. DE.

TRENTON NATURAL HISTORY SOCIETY. *See* NEW JERSEY NATURAL HISTORY SOCIETY.

TRETTER, LUDWIG.

1914. Lehrbuch für Gefangskanarienzüchter, Preisrichter und Vereine. *8vo. pp. 196. index.* *Altenburg.*

One of a numerous collection of popular German works on canary birds.

TREUBIA; Recueil de Travaux Zoologiques, Hydrobiologiques et Océanographiques. *Batavia.*

1919–*date*. Continues Contributions à la Faune des Indes Néerlandaises.

TREVES, FREDERICK [1853–1923].

1920. The cradle of the deep; an account of a voyage to the West Indies. *8vo. pp. 12+378. front. (col.). 44 pl. index.* *London.*

A popular travelogue by a versatile surgeon-naturalist, a teacher of the present Compiler, who in his frequent journeys about the world never failed to report his observations of animal life. The first edition of this work appeared in 1908 and there have been many since.

TREVOR-BATTYE, AUBYN [1855–].

1894. Pictures in Prose of Nature, Wild Sport, and Humble life. *8vo. pp. 10+243. front.* *London.*

1895. Ice-bound on Kolguev, a chapter in the exploration of arctic Europe to which is added a record of the natural history of the Island. 2nd ed. *8vo. pp. 28+458. 25 pl. 3 maps. 61 figs. index.* *Westminster.*

1903. *See* LILFORD, T. L. P.

**** and **BATE,** DOROTHEA M. A.

1913. Camping in Crete, with notes upon the animal and plant life of the island. *pp. xxi+(1)+308. front. 31 pl. 1 map (col. fold.). T. of c. index.* *London.*

A clear impression of the island, not conveyed in other naturalists' guide-books. There is an annotated list of 56 species of birds.

TRIMMER, *Mrs.* SARAH [1741–1810].

1821. Fabulous histories; or, The history of the robins, designed for the instruction of children respecting their treatment of animals. 13th ed. with woodcuts by Bewick. *8vo. pp. 8+164. 18 figs.* *London.*

The first edition of this popular and much read book was issued probably about 1785.

TRING, ENGLAND. Zoological Museum. *See* NOVITATES ZOOLOGICAE.

TRINIDAD FIELD NATURALISTS' CLUB, PORT-OF-SPAIN, TRINIDAD.
1892–6. Journal. (?All pub.)

TRINIDAD. Scientific Association. *See* SCIENTIFIC ASSOCIATION OF TRINIDAD.

TRINITY COLLEGE, HARTFORD, CONN. Natural History Department.
1902–6? Contributions—Biological Laboratory.

TRISTRAM, HENRY BAKER, *Canon* [1822–1906].
1871. [List of British Birds, Gray's arrangement.] Privately printed. 1 el. folio sheet printed in five cols. on one side only, and dated August 1st, 1871.

A useful list of the English names of 350 British species and 32 'doubtful British birds'. This paper was found in a volume of Canon Tristram's minor contributions to ornithology from the author's own library. The present Compiler has not seen it catalogued and attributes the compilation to the reverend ornithologist with some hesitation.

1883. The natural history of the Bible, with a description of every animal and plant mentioned in Holy Scripture. 7th ed. *12mo. pp. 8+520. 131 figs. append. 2 indexes.* *London.*

1884. Fauna and Flora of Palestine. *4to. pp. 22+455. 20 col. pl.* *London.*

The best-known work on the subject. From the *Survey of Western Palestine.*

1889. Catalogue of a collection of birds belonging to H. B. Tristram. *4to. pp. 16+278. index.* *Durham.*

An aggregation of over 17,000 specimens carefully mounted and labelled with all the usual scientific details.

1902–20. *See* VICTORIA HISTORY OF THE COUNTIES OF ENGLAND.

TRISTRAM-VALENTINE, J. T.
1895. London birds and beasts, with a preface by F. E. Beddard. *12mo. pp. xii+319. T. of c.* *London.*

Collected papers from the *Saturday Review.*

TROMSØ MUSEUM, TROMSØ, NORWAY.
1873–*date.* Aarsberetning.

1878–*date.* Aarshefter.

1925–8. Skrifter.

TROPISCHE NATUUR. (Nederlandsch-Indische Natuur-Historische Vereeniging.)
1912–*date.* *Weltevreden.*

TROTTER, SPENCER.
1910–25. An Inquiry into the History of the current English Names of North American Land Birds. *8vo.* *? New York.*

TROUESSART, ÉDOUARD LOUIS [1842–?1914].
[1891]. Les oiseaux utiles. *folio. pp. 8+(88). 44 col. pl.* *Paris.*

This important and beautifully illustrated work has for its motto a saying of Edmond About to the effect that man spends half his life fighting his enemies and the other half killing his friends.

1898–9. Catalogus mammalium tam viventium quam fossilium. Nova ed. (prima completa). *2 vols. 8vo. paged continuously.* Vol. I, *pp. 11+664.* Vol. II, *pp. 665–1469. append.* *Berolini.*

An excellent, indeed necessary, work of reference for every good natural history library. It was issued in six fascicles each with a special title-page. In 1904 a needed supplement (q.v.) was published.

1904–5. Quinquennale supplementum, anno 1904. *8vo. pp. 11+929.* *Berolini.*

This quinquennial supplement was published in four fasciculi as a continuation of the *Catalogus mammalium*, and should be bound up with it.

[1906]–8. *See* FRANCE. EXPÉDITION ANTARCTIQUE.

1912. Catalogue des oiseaux d'Europe, pour servir de complément et de supplément à l'ornithologie européenne de Degland et Gerbe (1867). *8vo. pp. xviii+545. index.* *Paris.*

This work is peculiarly arranged, showing two distinct categories. On the right hand (usually odd-numbered) pages is given a concise description of the avian fauna of Europe according to the ideas of the compiler, who employs mostly the classifications of Hartert and Dresser. On the left (even-numbered) pages appear the nomenclature, etc., employed by Degland and Gerbe, 1867. Species not noticed by these joint authors are briefly described by the compiler. *See also* DEGLAND, C. D., 1867.

TROZELIUS, CLAS BLECHERT [1719–94].
[1768]. Dissertatio gradualis de animalibus hibernantibus, quam . . . praeside C. B. Trozelio, . . . publico eruditorum examini offert Jonas Svenonius. *8vo. pp. 13.* *Londini Gothorum.*

Mainly because the author 'presided' when this Lund inaugural address was defended the essay is credited to him instead of to Jonas Svenonius, the candidate. It is an interesting tractate on hibernating animals.

TRÜBNER, NICHOLAS.
1859. Bibliographical guide to American Literature: a classed list of books published in the United States of America during the last forty years; with biographical introduction, notes, and alphabetical index. *pp. 149+554.*

Useful (for the period covered) because of the evaluations of scientific serials and on account of the bibliographic introduction. The first edition appeared in 1855.

TRUE, FREDERICK WILLIAM [1858–].
1884–7. *See* UNITED STATES. FISHERIES.

1887. *See* NELSON, E. W. and TRUE, F. W.

1898–9. *See* JORDAN, D. S. and others.

1898–9. *See* UNITED STATES. BUREAU FISHERIES.

1910. An account of the Beaked Whales . . . in the U.S. National Museum. *4to. pp. 1+89. 42 pl.* *Washington.*

This is a separately published monograph by a noted systematist. It forms *Bull.* No. 73 of the *Museum* and is extremely well illustrated. The author has written many other valuable monographs on aquatic mammals, mostly issued by the *U.S. National Museum.* He also wrote (with E. W. Nelson) an excellent report on the mammals of Northern Alaska, 1887.

TRUMBULL, GURDON [1841–1903].
[1888]. Names and portraits of birds which interest gunners. *8vo. pp. 8+221. 91 figs. index.* *New York.*

Another book by a semi-professional bird killer. His accounts of 61 species of North American game birds somewhat mitigate the misdeeds he would have his compatriots commit by describing the plumage, habitat, etc. of his prospective victims. He also furnishes the various vernacular names of the species applied by hunters in various parts of the eastern half of the United States.

TRUTHS OF NATURE. A Monthly Journal of Natural Science. 1889. *Boston.*

TSCHUDI, FRIEDRICH VON [1820–86].
1856. Das Thierleben der Alpenwelt. 3rd ed. *8vo.* *Leipzig.*

The first edition of this important and popular work appeared in 1853; the ninth in 1872. The copy in hand is of the third edition. The various McGill libraries have also the eighth and eleventh printings whose contents do not vary essentially from those of the present copy.

1870. Le Monde des Alpes, etc. 2nd ed. *Bâle.*

TSCHUDI, JOHANN JACOB VON [1818–89].

1845–6. [Untersuchungen über die Fauna Peruana] Ornithologie, mit Anmerkungen von J. [L.] Cabanis. *folio. pp. 316. 36 col. pl.* *St. Gallen.*

The ornithological portion of a complete work on Peruvian fauna which appeared in 12 parts. The volume in hand, from the Godman Library, gives a descriptive and systematic catalogue of the birds of Peru, with remarks by Cabanis who describes several new species.

TSCHUSI ZU SCHMIDHOFEN, VICTOR, *Ritter* VON.

[**1873**]. Der Tannenheher (Nucifraga caryocatactes). *4to. pp. 4+31. 2 pl. T. of c.* *Dresden.*

A complete description of the Nutcracker.

1877. Die Vögel Salzburgs. Eine Aufzahlung aller in diesem Lande beobachteten Arten, etc. *8vo. pp. xxi+90.* *Salzburg.*

A concise catalogue of 239 species of birds found in and near Salzburg. This brochure is an enlarged and revised edition of a paper on the same subject contributed to vols. XVI and XVII of *Der Zoologische Garten*. The present tract is a gift from the author to Dr. Ant. Reichenow.

1890. Das Steppenhuhn (Syrrhaptes paradoxus, Pall.) in Oesterreich-Ungarn. *8vo. pp. 4+100. map.* *Graz.*

On the phenomenal irruption into western Europe of a vast horde of the Pallas Asiatic Sand-Grouse in 1883.

1901–16. Ornithologische Literatur Osterreich-Ungarns und des Okkupationsgebietes. *no t.-p. 16 vols. in 1. 8vo.* *Wien.*

Edited by the author, founder of the *Ornithologisches Jahrbuch* (q.v.). Although this important annual contribution to the ornithological literature of Austria-Hungary is a separate publication from the *Verhandlungen der k. k. zoologisch-botanischen Gesellschaft in Wien*, yet it was also issued and bound separately as a serial and as such is entitled to a place in this *Catalogue*. It is a useful work of reference for the student.

1912. *See* DOMBROWSKI, ROBERT VON.

TUAN CH'ÊNG-SHIH 段成式 [9th cent A.D.].

1806. Jou kuo pu 肉攫部; Description of birds of prey, such as eagles, and the way to catch them. *pp. 7.* (In *T'ang tai ts'ung shu* 唐代叢書). *18·6×11·9 cm.* [G.]

TUANO, JACOPO AUGUSTO.

1735. Il Falconiere di J. A. Tuano . . . dall'esametro Latino all'endecasillabo Italiano trasferito, ed interpretato. Coll'Uccellatura a vischio di P. Angelio Bargeo . . . Poemetto pur Latino, similmente tradotto, e commentato. Ozii, e ameni studii de G. P. Bergantini. *4to. pp. 36+223+50+17. 1 pl. 1 portr.* *Venezia.*

This rather scarce treatise is divided into three distinct sections. The first is a translation into hendecasyllabic Italian verse of original Latin hexameters dealing with falconry in general; the second part, also in verse, describes a method of catching birds by means of birdlime (still widely used in Italy) and, third, leisure-hour studies by G. P. Bergantini.

TUCKER, ANDREW G. C.

1809. Ornithologia Danmoniensis; or, An history of the habits and economy of Devonshire birds. *4to. pp. lxxxviii. 12 pl. (6 col.).* *London.*

The first of the local histories of English birds. It is an ambitious work, the text of which ends abruptly at p. 88 of the Introduction. The two parts printed show the author to have been an educated naturalist. The present copy contains six plain and six colored plates by W. R. Jordan. The covers to the two parts are bound in.

TUCKEY, JAMES KINGSTON [1776–1816].

1818. Narrative of an Expedition to explore . . . the Congo, etc. *4to. pp. 82+498. 13 pl. 1 map. illust. text.* *London.*

A relatively important scientific travelogue, W. E. Leach having described a new species of Rafinesque's *Ocythoë*. J. Cranch gave an account of the collected animals as a whole, including 36 bird species.

TUCUMÁN, ARGENTINA. Museo de Historia Natural.

1924–*date.* Boletin.

TUEBINGEN ZOOLOGISCHE ARBEITEN.

1894–8. *Leipzig.*

TUEBINGER BLÄTTER FÜR NATURWISSENSCHAFTEN UND ARZNEIKUNDE. 1815–17. *Tübingen.*

TUEBINGER NATURWISSENSCHAFTLICHE ABHANDLUNGEN. 1922–*date.* *Tübingen.*

TUFTS, ROBIE WILFRID.

1917. Notes on the birds of the Grand Pré region, King's county, Nova Scotia. *8vo. pp. 154–99.* *Halifax, N.S.*

Author's separate, published Sept. 22, 1917. The observations are the results of field-work extending over 20 years. The annotated list contains 180 species and subspecies of birds, one-half of which breed in the area.

TUHFATU'S-SA'IDIN.

1870. Hindustani lithogram by Abid b. Husayn Ansari, on the lawfulness of the flesh of different animals for food. *pp. 16.* *Lucknow* (?).

TULK, ALFRED and **HENFREY,** ARTHUR [1819–59].

1844. Anatomical manipulation; or, The methods of pursuing practical investigations in comparative anatomy and physiology. *8vo. pp. 16+413. text-figs.* *London.*

TULLBERG, TYCHO FREDERIK HUGO [1842–].

1899. Ueber das system der nagethiere; eine phylogenetische studie. *4to. pp. 514+18. 57 pl.* *Upsala.*

Author's reprint of an elaborate monograph on the rodentia.

TULPIUS, NICOLAUS [1593–1674].

1652. Observationes medicae. Elzevir ed. *4 vols. 8vo. pp. 403. 18 pl.* *Amsteloedami.*

This physician, with the vernacular name of Claes Pieterszoon Tulp, was a Dutch naturalist of repute. He wrote, *inter alia*, in this work, one of the earliest descriptions of the Chimpanzee, with plate, erroneously called the Orang Utang. The Osler Library has the 1672 edition, the *editio princeps* having been published in 1641, since when at least half a dozen printings have appeared.

1672. N. Tulpii . . . observationes medicae. Ed. nova. [O.] *8vo.*

TUNG SSÛ-CHANG 董斯張 [7th cent.?].

1761. Kuang po wu chih 廣博物志; Encyclopedic work, including material on animals, birds, insects, fishes, etc., chüan 44–50. *25·7×16·6 cm.* [G.]

TUNSTALL, MARMADUKE [1743–90].

1771. Ornithologia britannica: seu Avium omnium britannicarum tam terrestrium, quam aquaticarum catalogus, sermone latino, anglico & gallico redditus: cui subjicitur appendix, avec alienigenas, in Angliam raro advenientes, complectens. Printed for the author by J. Dixwell, 1771. *folio. pp. (2)+4. 1 fig.* *London.*

A list of species with names in Latin, English, and French. Since the vernacular names are identifiable, the Latin ones are tenable, and various avian names date from this publication. This original folio is very rare (the copy in hand is in the E.S.W. Library) and for that reason was reprinted in 1880 by the Willughby Society. The text-figure of two Water-Ouzels is by P. Brown.

[1780–90]. [Original manuscript notes and additions to the zoological works of Thomas Pennant; with water-coloured drawings of birds.] *4 vols. 4to.* Vol. I, *pp. 268. 6 pl. 8 figs.* Vol. II, *pp. 412. 14 col. drawings (15 figs.). 4 pl. 1 fig.* Vol. III, *pp. 296. 6 col. drawings (8 figs.). 2 pl. 2 figs. (1 tab.).* Vol. IV, *pp. 304. 1 pl. 5 figs.* [*Wycliffe Hall.*]

For the meagre information we possess about this eminent ornithologist one must turn to the *Memoirs of Marmaduke Tunstall* in George Fox's *Synopsis of the Newcastle Museum*, 1827, a copy of which, with portrait, is bound in with vol. I of the present unique and extremely interesting collection of MS. notes. The 20 water-color drawings (23 figs.) mostly represent birds not figured in Pennant's *British Zoology*, edition 1776 (q.v.). These drawings and the accompanying manuscript are certainly the work of Tunstall, and were probably prepared for future publication.

******** and **NEWTON,** ALFRED, *ed.*

1880. The Willughby Society. Tunstall's Ornithologia Britannica [1771]. Edited by Alfred Newton. *8vo. pp. iv+(2)+4+(6). 1 fig.* *London.*

A facsimile reduced from the original folio of 1771 (q.v.) by photolithographic process. A preface by the editor gives a few facts relative to the author. *See also* WILLUGHBY SOCIETY.

TURATI, ERCOLE [1828–81].

1865–[71]. Storia naturale degli Uccelli . . . Lombardia. *2 vols. folio.* *See also* BETTONI, E.

TURBERVILE [TURBERVILLE], GEORGE [1540–1610].

1611. The booke of Falconrie or Havnting; For the onely delight and pleasure of all Noblemen and Gentlemen: Collected out of the best Authors, aswell Italians as Frenchmen, and some English practises withall concerning Falconrie; Heretofore published by George Turbervile, Gentleman. And now newly reviued, corrected and augmented, with many new Additions proper to these present times. *4to. title with illust. of Hawking. pp. iv (Poem)+370. 2 ll. Epilogue in verse. num. cuts of accipitres.* *London.*

The second edition (first A.D. 1575, extremely rare) of one of the most prized and best illustrated of early English books on hawking. The woodcuts of birds and hunting scenes are remarkably well made. As usual, bound up with this volume, and by the same author, is the *Noble Art of Venerie, or Hunting*. This augmented printing further differs from the first in having had (pp. 81 and 112) the figure of James I substituted for that of Queen Elizabeth. The author was also well known as a poet.

1611. The noble art of venerie or hunting. Wherein is handled and set out the vertues, nature, and properties of fifteene sundry chaces, together with the order and manner how to hunt and kill every one of them. Translated & collected for the pleasure of all noblemen and gentlemen, out of the best approved authors, which have written any thing concerning the same: and reduced into such order and proper termes as are vsed here in this noble Realme of Great Britaine. *8vo. pp. (6)+250+(4). vignette. 52 figs. (4 music). T. of c.* *London.*

What a word-painting of the noble art of bird-killing by 'our betters' in the sixteenth and seventeenth century is the above title! This work is generally ascribed to Turberville and usually found bound with the first edition of his work the *Booke of Faulconrie or Hawking*, 1575, but in the present instance with the second edition, 1611. Much of the text is given over to describing various beasts of the chase, on the treatment of diseases in hounds, and frequently the writer, like Mr. Wegg, breaks into (descriptive) poetry.

TURF, FIELD AND FARM. 1865–1903. *New York.*

TURGOT, ÉTIENNE FRANÇOIS [1721–89].

1758. Mémoire . . . sur la manière de rassembler, . . . les divers curiosités d'Histoire naturelle, etc. *Lyon.*

TURIN. *See* (R.) ACCADEMIA DELLA SCIENZE DI TORINO.

TURIN. Musei di Zoologia ed Anatomia Comparata.

1886–*date.* Bollettino.

TURNBULL, WILLIAM PATERSON [1830–71].

[1863]. Birds of East Lothian and a portion of the adjoining counties, from memorandums made between 1845–50. *8vo. pp. 15+(1).* *Philadelphia.*

A list of 201 birds of East Lothian, Scotland, with notes on distribution, etc. The book is undated and '1863' is quoted on the authority of Coues and of Taschenberg. The present volume was the author's own copy, and was purchased from his grandson.

1867. Birds of East Lothian and a portion of the adjoining counties. *8vo. pp. 7+48. 13 figs.* *Glasgow.*

An annotated list of 235 species. The present volume, in the E.S.W. Library, is one of two printed on pure white vellum, and is the author's own copy. The owner of the other copy is unknown. The first edition (q.v.) according to Coues was issued in 1863. If we are to believe the statement on the opposite side of the title-page the two vellum copies were in the 8vo edition and not in the 4to as stated by Mullens.

1869. The birds of east Pennsylvania and New Jersey. Printed for private circulation. *4to. pp. x +62. 19 figs.* *Glasgow.*

An annotated list of 342 birds of that part of 'Pennsylvania eastward of Alleghany Mountains, and of New Jersey, including the coast line which extends from Sandy Hook to Cape May'. Notes are given on abundance, dates of arrival and departure, vernacular names, etc. The drawings (after Wilson) were taken from his portfolio after his death. The edition of this work was limited to 150 copies 8vo, and 50 4to—two of the former being on vellum. The one under discussion is the author's own copy and was purchased from his grandson. There is an edition of this same date published in Philadelphia, but printed in Glasgow, which Coues is of the opinion may have been the first one, but which Zimmer (*Ayer Catalogue*, p. 643) considers to be the second. A detailed account of the work appeared in *Cassinia*, No. xx, pp. 1–6, 1916.

1869. The birds of east Pennsylvania and New Jersey. *8vo. pp. vii+50. vignette (on orig. wrapper).* *Philadelphia.*

An American edition of the work (published the same year in Glasgow under the same title) but without illustrations, except the vignette on the wrapper. Two changes in nomenclature occur, besides various other alterations, a full account of which are given by Zimmer in the *Ayer Catalogue*, p. 643.

TURNER, EMMA LOUISA and **BAHR,** P. H.

1907. The home-life of some marsh-birds. *8vo. pp. 62. 32 pl. 12 figs. T. of c.* *London.*

1911–13. (The) British bird book, etc. *See* KIRKMAN, F. B. B.

1924. Broadland birds. *8vo. pp. 16+172. 70 pl. index.* *London.*

****** and GURNEY,** ROBERT.

1925. A book about birds; an introduction to the study of their structure, habits and characteristics. Illust. with sketches by Robert Gurney. *12mo. pp. 120. 24 figs. index.* *London.*

TURNER, HY. J. **1909.** *See* SOUTH-EASTERN UNION OF SCIENTIFIC SOCIETIES.

TURNER, L. M.

1886. Contributions to the Natural History of Alaska. *4to. illust.* *Washington.*

TURNER, WILLIAM, *Dean of Wells* [d. 1568].

1544. Avium praecipuarum, quarum apud Plinium et Aristotelem mentio est, brevis & succincta historia; ex optimis quibusque scriptoribus contexta, scholio illustrata & aucta. Adiectis nominibus Graecis, Germanicis & Britannicis. Coloniae excudebat Ioan. Gymnicus, Anno M.D.XLIIII. *8vo. pp. (2)+(155).*

The earliest book on birds, written by an Englishman at Cologne in 1544. There are very few original copies of this interesting little book, which has been reproduced in recent years. The best account of the author's life and works is given in Mullens and Swann, *Bibliography of British Ornithology* (q.v.). *See also* TURNER, WILLIAM and EVANS, ARTHUR HUMBLE.

'Turner's object in writing the present treatise is fully set forth in his *Epistola Nuncupatoria* prefixed to it. While attempting to determine the principal kinds of birds named by Aristotle and Pliny, he has added notes from his own experience on some species which had come under his observation, and in so doing he has produced the first book on Birds which treats them in anything like a modern scientific spirit and not from the medical point of view adopted by nearly all his predecessors; nor is it too much to say that almost every page bears witness to a personal knowledge of the subject, which would be distinctly creditable even to a modern ornithologist.' —A. H. Evans, *Turner on Birds.*

****** and LONGOLIUS,** GYBERTUS.

1544. Dialogus De Avi-bus, Et Earum nominibus Græcis, Latinis, & Ger-manicis . . . Per Dn. Gybertum Longolium . . . Coloniæ excudebat Io. Gymnicus, Anno M.D.XLIIII. *sm. 8vo. 56 ll. (A–G⁸).* *Cologne.*

Although not generally known, this rare book has Turnerian interest. It was from Cologne in 1544 that Turner issued his *Avium præcipuarum Historia* (q.v.). In the same year, and through the same press, he edited this posthumous work of his friend Gybertus Longolius of Utrecht.

****** and THACKERAY,** GEORGE.

1823. William Turner: Avium Praecipuarum historia, etc. Reprint of the original (1544) edition. (Wanting.) *Cambridge.*

****** and EVANS,** ARTHUR HUMBLE.

1903. Turner on birds: a short and succinct history of the principal birds noticed by Pliny and Aristotle, first published by Doctor William Turner, 1544. With introduction, translation, notes, and appendix. With reproduction of original t.-p.: Avivm praecipvarvm, qvarvm apvd Plinivm et Aristotelem mentio est, breuis & succincta historia. Ex optimis quibusque scriptoribus contexta, scholio illustrata & aucta. Adiectis nominibus Græcis, Germanicis & Britannicis. Per Dn. Guilielmum Turnerum, artium & medicinæ doctorem. Coloniæ excudebat Ioan. Gymnicus, Anno M.D.XLIIII. Original and translation on opposite pages. *8vo. pp. 18+223. index.* *Cambridge.*

TURNER, WILLIAM [1832–?1905].

1887. Report on the seals collected during the voyage of H.M.S. 'Challenger' in the years 1873–76. *4to. pp. 240. 10 pl. text-figs.* *See* ZOOLOGY CHALLENGER EXPED., Part 68.

TURNER-TURNER, J.

1902. The Giant Fish of Florida. *8vo. pp. 11+206. index. 48 pl.* *London.*

TURQUET, J. **1906–24.** *See* CHARCOT, J. B. E.

TURQUET DE MAYERNE, THEODOR [1573–1655].

1634. Insectorum etc. *fol.* *Londini.*

TURTON, WILLIAM [1762–1835].

1805. *See* GOLDSMITH, OLIVER.

1806. *See* LINNAEUS, C.

1807. British fauna, containing a compendium of the zoology of the British islands: arranged according to the Linnean system. Vol. I. *12mo. pp. 230+vii. index.* *Swansea.*

An interleaved copy with MS. notes by J. C. Dales, F.L.S., High Sheriff of Dorset, with his bookplate dated 1843, and that of Major Mullens. The portion dealing with the class *Aves* will be found on pp. 18–77, the list consisting of 294 species which are described as to size and color only. The work was never carried beyond the first volume.

1816. *See* GOLDSMITH, OLIVER.

TUTT, JAMES WILLIAM [1858–1911].

1919. Woodside, burnside, hillside and marsh. *8vo. pp. 6+241. illust.* *London.*

TU YA T'SIUN.

1927. Zoological Nomenclature. A complete dictionary of zoological terms. 4th ed. English-Chinese Index. *pp. 135.* Chinese Index. *pp. 82.* Text. *pp. 2,635. illust. in colors and black and white. 9 in.×6 in.* [G.] *Shanghai.*

TWEEDDALE, ARTHUR HAY, *9th Marquis of* [1824–78].

1875. A list of the [219 species of] birds known to inhabit the Philippine archipelago. *4to. pp. 128. 13 col. pl. append.* [*London.*]

Author's reprint from the *Trans. Lond. Zool. Soc.*, 1875. A second attempt to construct a complete list of the Philippine avifauna, the first having been compiled by Dr. V. Martens in 1866, who enumerated 194 species. From these, the present author has deducted 24 (for various reasons), but has added 49, thus making the total 219. The Appendix, pp. 249–52, contains an Index of Philippine species as well as a Table showing their Geographical distribution.

1881. Ornithological works; ed. and rev. by his nephew, R. G. W. Ramsay, together with a biographical sketch of the author by W. H. Russell. *4to. pp. 64+760. portr. 14 text-figs.* *London.*

Reprinted from the originals for private circulation.

1880–5. *See* THOMSON, C. W.

TYAS, ROBERT [1811–79].

[**? 1854–6**]. Beautiful birds. *See* COTTON, JOHN.

TYLER, J. G.

1913. Birds of the Fresno District, Cal. *pp. 114.*

Author's separate of No. 9, *Pacific Coast Avifauna.*

TYLOR, ALFRED [1824–84] and **SKERTCHLY,** SYDNEY B. J., *ed.*

1886. Colouration in animals and plants. *8vo. pp. 14+105. 24 pl. (12 col.). 3 figs. glossary. index.* *London.*

Very rare; not in *Cat. Br. Mus.* (*Nat. Hist.*).

TYNESIDE NATURALISTS' FIELD CLUB. *Newcastle-on-Tyne.*

1846–64. Transactions. (All pub.)

TYSON, EDWARD [1650–1708].

1699. Orang-outang; sive, Homo sylvestris; or, The anatomy of a pygmy compared with that of a monkey, an ape, and a man. To which is added, A philological essay concerning the pygmies, the cynocephali, the satyrs, and sphinges of the ancients. *2 vols. in 1. 4to. pp. 12+108+55. 8 pl.* [O. 4139.] *London.*

Description of an ape which Tyson dissected. It proved to be a Chimpanzee, whose skeleton is still preserved in the *Brit. Mus., Nat. Hist. Dept.*

TYZENHAUS, H. v.

1843–6. Ornithologia powszechnia, etc. In Polish. *3 vols.* (Wanting.) *Wilna.*

TYZENHAUZ, KONSTANTY [1786–1853]. **1862.** *See* TACZANOWSKI, W. [L.]

UEXKÜLL, JAKOB JOHANN VON [1864–].

1928. Theoretische biologie. 2nd ed. *7 pl. Berlin.*

UITGELEEZE NATURKUNDIGE VERHANDLINGEN. 1734–64? *Amsterdam.*

ULLOA, ANTONIO DE [1716–95].

1772. Noticias americanas, etc. *4to. Madrid.*

The observations of this Spanish adventurer to South America included many descriptions of its fauna.

ULSTER FISHERIES AND BIOLOGY ASSOCIATION.

1907. Scientific Papers.

UNCLE WARREN, *pseud.*

1897. Birds; their homes and their habits. *4to. pp. 4+192. 24 pl. Philadelphia.*

UNDERWOOD, CECIL F.

1889. Avifauna Costarriquena Lista Revisada. (Wanting.) *San José, Costa Rica.*

UNGARISCHE NATURWISSENSCHAFTLICHE GESELLSCHAFT. *See* (K.) MAGYAR TERMÉSZETTUDOMÁNYI TÁRSULAT, BUDAPEST.

UNIONE ZOOLOGICA ITALIANA. *See* ARCHIVIO ZOOLOGICO.

UNION LIST OF SERIALS, etc. **1927.**

A valuable work of reference which has been of signal value in preparing the present *Catalogue.*

UNITED KINGDOM AND FOREIGN CAGE-BIRD SOCIETY.

1890–5. Reports edited by W. Osbaldeston for the Society. Vols. I–IV (all pub.). *12mo. Preston.*

The issues are not numbered; the numbers of the first volume bear irregular dates, and are separately paged; occasionally the pagination is continuous and includes two or more numbers.
This useful little periodical contained in addition to a list of society members, many short, interesting papers on cage-birds, by the Editor, by W. T. Greene, and other well-known naturalists.

UNITED STATES. [*Government voyages, expeditions, explorations, surveys,* etc., *most of them in chronologic order.*]

1845–76. United States Exploring Expedition . . . 1838–42, by Charles Wilkes. *20 vols. folio. Philadelphia.*

This represents the first full report of a famous expedition, a *Synopsis* in one volume having been published in 1842. The section on mammalogy and ornithology was originally written and pictured by Titian R. Peale, and published in 1848, but the text was subsequently suppressed and the drawings made by him were not reproduced on that date. Although Peale was the chief zoologist of the expedition his work was utilized by J. Cassin (under Government instruction) and little credit was given him in the elaborate report [vol. VIII, 1858] on Mammalogy and Ornithology, *pp. viii+466, 46 col. pl.* C. Girard wrote the section on herpetology, *pp. 17+496+10,* with *32 col. pl.* At least two reissues of parts of the present title were made, one of vol. XV, pt. 1, *pp. 168+44* in 1863, and another of the botany (Musci), vol. XVII, *pp. 32, 26 pl.* The *editio princeps* (1844) of this Voyage was a very limited one, and copies (especially of Titian Peale's section) are among the rarest of American scientific literature. A photostat copy of the latter is in the E.S.W. Library at McGill.

1845. Narrative of the United States exploring expedition, 1838–42, by Charles Wilkes. *5 vols. 8vo. 300 figs. Washington.*

Contains the same type, page, and reading matter as the large paper edition, but with the substitution of 47 woodcuts for that number of steel vignettes, the omission of the 64 plates, and the use of 10 of the 14 maps, 3 of which are on a reduced scale. References to birds will be found throughout the five volumes, but the best accounts of these are in the volume dealing with the Mammalogy and Ornithology of the expedition by John Cassin, 1858, together with a folio atlas containing 42 colored plates of the birds. A condensed and abridged edition in one vol. was issued in 1845.

[**1845?**]. Narrative of the United States exploring expedition during the years 1838–42, by Charles Wilkes. Condensed and abridged. *8vo. pp. (8)+372. 4 append. index. London.*

A condensation containing the pith of the larger edition published by the American Government in five vols., 1845. References to birds will be found throughout the volume, but the best account of these will be found in the volume dealing with the Mammalogy and Ornithology of the expedition by John Cassin, 1858, together with a folio atlas containing 42 colored plates of the birds.

1845. Narrative of the United States exploring expedition, 1838–42, by Charles Wilkes. *5 vols. 8vo. illust. Philadelphia.*

A reprint of the original edition issued the same year.

1848. United States Exploring Expedition. *See* PEALE, TITIAN RAMSAY.

1852. Geol. Survey, Wisconsin, Iowa and Minnesota, etc. Report, etc. By D. D. Owen. *4to. pp. 638. 46 col. pl. 4 col. maps. illust. text. Philadelphia.*

In this Report J. Leidy describes the remains of extinct chelonia and mammalia and H. Pratten furnishes a systematic catalogue of the birds.

1853. Report of an expedition down the Zuni and Colorado Rivers by Capt. L. Sitgreaves. *8vo. pp. 198. 78 pl. 1 map. Washington.*

This important Federal publication contains several sections on vertebrate zoology: a general report by S. W. Woodhouse; on mammals and birds by the same author; reptiles by E. Hallowell; fishes by S. F. Baird and C. Girard.

1853–4. Exploration of the Valley of the Amazon . . . made by W. L. Herndon and L. Gibbon. *2 vols. illust., and 2 vols. atlas. 8vo.* (Wanting.) *Washington.*

Valuable contributions to the natural history of South America are to be found in this noteworthy report.

1855–6. The U.S. Naval astronomical expedition to the southern hemisphere, during the years 1849–'50–'51–'52. Lieut. J. M. Gilliss, superintendent. *4 vols.* Vols. I, II, III, and VI. *4to. front. col. and plain pl. maps. plans. Washington.*

Among the zoological reports were, in vol. II, Appendix F, the Mammals by S. F. Baird, Birds by J. Cassin, Reptiles and Fishes by C. Girard; Appendix G, Fossil mammals by J. Wyman—all published in 1855.

1855–9. Pacific Railroad Survey . . . 1853–54. Reports of Explorations and surveys . . . route

for a railroad from the Mississippi to the Pacific Ocean. *11 vols. 4to. illust.* *Washington.*

This is an extremely valuable and extensive early scientific report on the zoology of the western half of the North American continent. Vol. III (1859) contains a report on land birds and reptiles by J. G. Cooper; mammals by J. G. Cooper, G. Suckley, and G. Gibbs. The Appendix of vol. V (1859) has an article on fossil fishes by L. Agassiz; vol. IV (a second zoological report, *pp. 114+4, 16 col. pl.*) furnishes a description of fishes by C. Girard, and an essay on general zoology by J. S. Newberry. Vol. VIII gives an important description of the mammals by S. F. Baird, 1857, *pp. 19–48+757, 44 pl. and illust. in text.* Vol. IX, birds, 1858, by S. F. Baird, J. Cassin, and G. N. Lawrence, *pp. 56+1005.* Vol. X, reptiles, by S. F. Baird, *pp. 16, 13 pl.*, 1859; fishes, by C. Girard, *pp. 14+400, 21 pl.*, 1858.
Continuing vol. II, there was issued a special zoological report of 27 pp. and 20 pl. For this section S. F. Baird commented on certain mammals, birds, and reptiles, while C. Girard described a few fishes. To this volume, also, A. L. Heermann added remarks on some birds, and E. Hallowell on reptiles. There was also added to vol. IV a report in 1859 (*pp. 64, 34 col. pl.*) by C. B. R. Kennerley on mammals and birds, by S. F. Baird on reptiles, and by C. Girard on fishes. To vol. V, a zoological report (1859) of *pp. 97*, with *26 col. pl.*, containing a description of certain reptiles by E. Hallowell; birds by A. L. Heermann, mammals by S. F. Baird, fishes by C. Girard. Continued from vol. VI a few pages were written by S. F. Baird (1857) on reptiles, illustrated by 4 pl.
A second edition (q.v.) of this rather mixed and confusing record was issued as 12 vols., 1855–61. Several of the volumes as well as many of the individual parts of both editions have been separately published.

1855–61. Pacific Railroad Survey . . . 1853–54. Reports of Explorations and Surveys, etc. *12 vols. 4to.* *Washington.*

The second edition of this well-known series. Vols. I–XI are practically identical with the *editio princeps*, the added vol. XII (Books 1 and 2) giving chiefly a history of a (new) transcontinental route from St. Paul to Puget Sound. Book 2 has the Zoological Report (1860) consisting of *pp. 9+399*, and *47 col. pl.*, in which the mammals are described by J. G. Cooper, G. Suckley, and G. Gibbs; land birds by J. G. Cooper, water birds by G. Suckley; reptiles by J. G. Cooper, and fishes by G. Suckley.

1857–9. Report on the United States and Mexican boundary survey. *2 vols. 4to.* Vol. I, *pt. and maps.* Vol. II, *271 pl. (25 col., birds). indexes.* *Washington.*

The report on 226 species of birds was prepared by Spencer F. Baird, with 25 colored plates.

1858. United States Exploring Expedition. During the years 1838, 1839, 1840, 1841, 1842. Under the Command of Charles Wilkes. Mammalogy and Ornithology by John Cassin, with a folio atlas. *pp. viii+466. index.* Atlas, *11+42 pl. index.* *Philadelphia.*

The above forms vol. VIII of the edition (in 24 vols.) published in 1844–74. It was first issued as Mammalia and Ornithology by Titian R. Peale . . . Philadelphia, without plates. This volume was later suppressed and replaced by the present one by John Cassin.

1858. Reports of Explorations and Surveys, to ascertain the most practicable and economical route for a railroad from the Mississippi River to the Pacific Ocean, 1853–56. Vol. IX. Birds; by Spencer F. Baird. With the co-operation of John Cassin and George N. Lawrence. *4to. pp. 56+1005. 3 append. bibliogr. 2 indexes.* *Washington.*

The most important work on North American birds up to its date since Audubon and Wilson. The work is not restricted to the species collected by the Pacific Railroad Surveys, but embraces a descriptive account of all the birds of North America, north of Mexico. Most of it is by Baird, but *pp. 4–64, 689–753*, and *900–18* are by Cassin, and *pp. 820–900* by Lawrence. *Pp. xvii–lvi* were reissued, with separate title-page, in 1858 as Baird's *Catalogue of North American Birds.* The entire volume was reprinted in 1860 with few alterations and issued, together with plates from other volumes of the Pacific Railroad Survey reports, the U.S. and Mexican Boundary Survey, and other sources, as Baird, Cassin, and Lawrence's *The Birds of North America.*
The present volume also exists as *Senate Ex. Doc.*, No. 78.

1870–80. Geologic Exploration of the Fortieth Parallel. Report, etc. *7 vols. with atlases. 4to and folio.* *Washington.*

The sections that interest vertebrate zoologists are vol. IV, part 3, Ornithology by R. Ridgway, 1877, and vol. VII, Odontornithes by O. C. Marsh, *pp. xv+201, 34 pl. and illust. text.* Both these important monographs are listed and elsewhere commented on in the pages of this *Introduction*.

Department of Fisheries. *Washington.*
1871–*date*. Reports.

1881–*date*. Bulletin.

1884–7. Fisheries and Fishery Industries of the United States. By G. B. Goode [and others]. *5 sections. 8vo.* *Washington.*

This important governmental publication contains a number of papers on various aspects of American fishes and fisheries by G. B. Goode, on whales and porpoises by the same author; seals and walruses by J. A. Allen; habits of the Fur-seal by H. W. Elliott; Manatees and Arctic Sea Cow by F. W. True; and on reptiles and batrachians by the last named naturalist.

1898–9. Bureau of Fisheries. The Fur-Seals and Fur-Seal Islands of the North Pacific Ocean. By D. S. Jordan and others. *4 vols. 8vo. illust.* *Washington.*

Under the heading *supra* is included many sections whose valuable contributions to the natural history are not indicated by the major title. The chief editor, David Starr Jordan, in conjunction with G. A. Clark, C. W. Stiles, A. Hassall, and L. Stejneger, gives an elaborate account of the seals; F. W. True describes the mammals; W. Palmer the avifauna; D. S. Jordan, C. H. Gilbert, and N. B. Scofield the fishes.

1873–80. Geologic and Geographic Survey of the Territories. Miscellaneous Publications. Nos. 1–12. *8vo.* *Washington.*

This is a noteworthy and important series separately paged and often published as individual volumes. The titles on vertebrate zoology are all listed in this *Catalogue* and several of them commented on in the *Introduction*.

1873–90. Geologic and Geographic Survey of the Territories. Report, etc. Vols. I–III–V–XIII. *4to.* *Washington.*

Vol. IV of this important series was never issued. Many of the (separately paged) volumes were published independently; those relating to vertebrate zoology are listed as such in this *Catalogue*. They are: vol. I, pt. 1, J. Leidy, Contributions to the extinct Vertebrate Fauna of the Western Territories, 1873, *pp. 358, 37 pl.*; vol. II, E. D. Cope, Vertebrata of the Cretaceous formations of the West, 1875, *pp. 4+302, 57 pl. and illust. in text*; vol. III, Vertebrata of the Tertiary formations of the West, 1883–4, *2 pts., pp. 34+1009, text illust.* Atlas with *134 pl.*, also by E. D. Cope; Monographs of North American Rodentia, by E. Coues and J. A. Allen, 1877, *pp. 12+10+1091, 6 pl. and illust. text.*

1874–89. Geographic and Geologic Explorations West of the Hundredth Meridian. Reports, etc. Vols. I–VI and atlas. *4to. and folio.* *Washington, D.C.*

One of the most valuable of Federal contributions to Zoology, *pp. 1021, 45 pl.*, 28 of them colored, and numerous text illustrations, 1875. H. W. Henshaw described the birds; H. C. Yarrow and E. Coues the batrachians and reptiles; E. D. Cope and H. C. Yarrow the fishes.

1883. Voyage to Alaska. Cruise of the Revenue-Steamer 'Corwin' in Alaska and the N.W. Arctic Ocean in 1881. *4to. pp. 120. 12 pl. illust. text.* *Washington.*

In this important work the birds are described by E. W. Nelson, the fishes by T. H. Bean.

1885. Voyage to Alaska. Report of the International Polar Expedition to Point Barrow, Alaska, etc. *4ot. pp. 695. 21 pl.* *Washington.*

The mammals, birds, and fishes collected on this expedition were described by J. Murdoch.

1889–1930. Department of Agriculture. North American Fauna.

A very important serial, many of whose titles (on vertebrate zoology) are separately listed in this *Catalogue*.

1920. Department of Agriculture. Game laws for 1920. A summary of the provisions of federal,

[**UNITED STATES** (*contd.*)]

state, and provincial statutes. *8vo. pp. 84. T. of c.* [*Washington.*]

The objects of this Bulletin, containing the twenty-first annual summary of Federal and other game laws and regulations, are to present the provisions of game legislation in convenient form for sportsmen and others and to show its general condition and trend from year to year.

1922–30. Department of Agriculture. Bureau of Biological Survey. Bird banding notes. Irreg. *4to.* Issued by E. H. Nelson, Director. Mimeographed. *Washington.*

Although the Director deprecates listing this useful circular as a 'periodical' yet it comes well within the definition adopted by the Compiler, and he is glad to draw attention to its extreme value as a record of work done in bird banding, not only in the United States but abroad.

1924. Committee on agriculture. Migratory bird refuge act. A bill for the establishment of migratory-bird refuges to furnish in perpetuity homes for migratory birds, the establishment of public shooting grounds to preserve the American system of free shooting, the provision of funds for establishing such areas, and the furnishing of adequate protection for migratory birds. *8vo. pp. 3+63. T. of c.* *Washington.*

National Museum. *Washington.*
1875–*date.* Bulletin.

1878–*date.* Proceedings.
See also SMITHSONIAN INSTITUTION.

1918. National park service. Department of the interior. Wild animals of Glacier national park. The mammals, . . . by V. Bailey, The birds, by F. M. Bailey. *See* BAILEY, V. and BAILEY, F. A. (born MERRIAM).

1920. Superintendent of Documents. Price list 39. 9th ed. Birds and wild animals. List of publications relating to above subjects for sale. *8vo. pp. 12.* *Washington, D.C.*

UNIVERSITETETS ZOOLOGISKE MUSEUM. *Copenhagen.*
Publikationer.

UNIVERSITY OF CHICAGO SCHOOL SCIENCE SERIES.
1924. Our living world. *See* DOWNING, E. R.

UNSERE VOGELZUCHT. Illustrirte Zeitschrift, herausgegeben von Baron G. Heyking. [German translation of the Russian title.]
1907–16. (All pub.?) *Kief, Russia.*

The Compiler's information is that this deservedly successful monthly was interrupted by the World War and its aftermath, but that it may yet be continued.

UNSERE WELT. Illustrierte Monatsschrift zur Förderung der Naturkenntnis. **1909**–*date.* *Bonn, Detmold.*

UNTERHALTUNGEN AUS DER NATURGESCHICHTE. **1792–1825?** *Augsburg.*

UNTERRICHT F. LIEBHABER DER KANARIENVÖGEL. *Quedlinburg.*
1864. Anonymous.

UNTERRICHTSBLÄTTER FÜR MATHEMATIK UND NATURWISSENSCHAFTEN. **1895**–*date.* *Berlin.*

UNTERSTEINER, LEOPOLDO.
1902. (I) nostri migliori uccelli canori. *12mo. pp. 9+175. T. of c.* *Milano.*

UNTERSUCHUNGEN ZUR NATURLEHRE DES MENSCHEN UND DER THIERE.
1856–1901? *Frankfurt-a-M.*

UPSALA. Universitet.
1861–*date.* Ärsskrift.

1912–*date.* Zoologiska Bidrag från Uppsala.

URAGUS. In Russian and German. Journal der Sibirischen Ornithologischen Gesellschaft. Published by the U.S.S.R. Siberian Tomsk University, Siberia in Russia. Quarterly.
1926–30. *4to. illust. covers.* Devoted to Siberian ornithology.

The first number gives the history and plans of the *Sib. Ornith. Soc.*, and several papers on the bird life of Siberia. It is proposed to issue as supplements monographs on Asiatic birds.

'URANIE AND PHYSICIENNE', VOYAGES OF THE. **1824–6.** *See* FREYCINET, LOUIS DE.

URE, GEORGE.
1890. Our fancy pigeons. *8vo. pp. 16+313. 6 pl. index.* *London.*

URSINUS, JOHANNES.
1541. Prosopopeia Animalium Aliquot: in qua multa de eorum uiribus, natura, proprietatibus precipuè ad rem Medicam, etc. Apud Mathiam Bonhomme. *4to. pp. 55. illust. title.* *Viennae.*

A curious and rare treatise in verse on certain animals whose parts are used in medicine.

USSHER, RICHARD JOHN [1841–1913] and **WARREN,** ROBERT.
1900. The birds of Ireland. An account of the distribution, migrations and habits of birds as observed in Ireland, with all additions to the Irish list. *8vo. pp. 31+419. 7 pl. (1 col.). text-figs. map.* *London.*

An excellent account of Irish birds—the best in recent years—giving a systematic catalogue of the various species with a full description of their characteristics and habits.

1903. Snipe and woodcock. *See* SHAW, L. H. DE VISME.

UTAH ACADEMY OF SCIENCES. Salt Lake City.
1908. Transactions.

UTHMAN BEG.
1886. 'Ilmu'l-haywanat. Modern treatise on zoology. In Arabic. *4to. pp. 23+775. text-figs. lithogram.* (?) *Cairo.*

UTRECHT. Rijksuniversiteit.
1889–94. Studies from the Zoological Laboratory.

VAGRANT. *Pseud.* (GREENWOOD, HARRY, *ed.*)
1868. Random notes on Indian and Burman ornithology. *8vo. pp. (2)+27.* *Bangalore.*

Notes on about 116 species of Indian and Burmese birds, based on Jerdon's *Birds of India*, 1862–4.

VAHL, MARTIN HENDRIKSEN [1749–1804]. **1788.** *See* MÜLLER, O. F.

VAILLANT, Auguste Nicolas [1793–1858].
1840–66. *See also* VOYAGES, FRENCH. Voyage autour du monde . . . sur 'La Bonite', commandée par M. Vaillant. *Paris.*
The reports of this famous scientific expedition were published in 15 vols. text and 3 vols. atlas. Vertebrate zoology is fairly represented, and the separate portions of vol. I covering general zoology and edited by Eydoux and Souleyet are found separately published.

VAILLANT, Léon Louis [1834–1914] and **BOCOURT,** F.
1868–1909. *See* MISSION SCIENTIFIQUE AU MEXIQUE.

1875–1900. *See* GRANDIDIER, A., Histoire physique de Madagascar.

1882. *See* RÉVOIL, G.

1885–91. *See* MISSION SCIENTIFIQUE DU CAP HORN.

1886–1906. *See* 'TRAVAILLEUR' AND 'TALISMAN'.

1894. *See* JAN-MAYEN, VOYAGE TO.

1906–8. *See* FRANCE. EXPÉDITION ANTARCTIQUE.

1910. Histoire naturelle des reptiles. (*Histoire physique, naturelle et politique de Madagascar*, vol. 17.) *4to. pp. 2+86. 27 pl.* *Paris.*

VALENCIENNES, Achille [1794–1865].
1825–37. *See* HUMBOLDT, F. H. A. and BONPLAND, A. J. A.
This accomplished French zoologist published no independent treatises of any importance. His *métier* seemed to be that of joint authorship and especially of making reports on the collections of others—and yet he performed very important functions in the world of science during the first half of the nineteenth century.

1828–49. *See* CUVIER, G. C. L. and VALENCIENNES, A.

[1831–46]. *See* VOYAGES, FRENCH: AUX INDES-ORIENTALES.

1835–44. *See* WEBB, P. B. and BERTHELOT, S.

1835–47. (Fishes of South America.) *See* VOYAGES, FRENCH: DANS L'AMÉRIQUE MÉRIDIONALE.

1840–64. *See* VOYAGES, FRENCH: AUTOUR DU MONDE SUR . . . LA VÉNUS.

1840–66. *See* VOYAGES, FRENCH: AUTOUR DU MONDE SUR LA BONITE.

1847. Poissons. *folio. pp. 11.* *Paris.*
One of the most valuable minor works of the author who in it reported on the fishes of South America in the well-known *Voyage dans l'Amérique Méridionale.*

VALENTIJN, François [?1666–1725].
1773. Abhandlung von Schnecken, Muscheln und Seegewächsen welche um Amboina und den umliegenden Inseln gefunden werden. Als ein Anhang zu G. E. Rumphs Amboinischen Raritätenkammer, aus dem Holländischen übersetzt von P. L. S. Müller. *folio. pp. 8+148. 18 pl.* *Wien.*
In this curious and interesting work, the plate containing Valentyn's illustration of the mermaid is reproduced from his *Oud en nieuw Oost-Indiën* (1724–6), though without the original narrative which is quoted in Tennent's *Ceylon.* In the explanation of the plate this 'fish' is pronounced to be fabulous.

VALENTIN, Rupert. **1924.** *See* BOYSON, V. F.

VALENTINI, Michael Bernhard [1657–1729].
1714. Museum Museorum oder vollständige Schau-Bühne, etc. Zweyte ed. Printed in double column. *folio. pp. 22+520. 7 pl. text-figs.: pp. 2+76. text-figs.: pp. 2+119. 9 pl.* *Franckfurt am Mayn.*
Minerals, plants, and animals are well described and illustrated. The 'dritter Buch' contains the description of the animals in the museum, with many quaint pictures. The first edition appeared in 1704. From the Frank Adams Library.

1720. Amphitheatrum Zootomicum . . . exhibens historiam animalium anatomicam. *3 pts. in 1 vol. folio. 104 pl.* *Francofurti ad Moenum.*
The first extensive work on the comparative anatomy of vertebrates.

'VALHALLA', VOYAGE OF THE. *See* NICOLL, M. J., 1908.

VALLEY NATURALIST. 1878–80. *St. Louis.*

VALLISNIERI (or Valisnieri), Antonio [1661–1730].
1710. Considerazioni, ed Esperienze intorno al creduto Cervello di Bue impietrito, vivente ancor l'Animale, etc. *8vo. pp. 15+51. 10 pl.* [O. 4155.] *Padoa.*
1715. Istoria del Camaleonte Affricano, e de varj Animali d'Italia. *4to. pp. 8+200. 13 pl. 1 portr.* *Venezia.*
First edition of a well-known work containing an early description of a chameleon.

1715. Raccolta di varj Trattati del Sig. Antonio Vallisnieri. *4to. pp. 261. 16 fold. copper pl. index.* *Venezia.*
This instructive collection of 19 papers covers an intelligent and wide discussion of many natural history subjects.

VALMONT DE BOMARE, Jacques Christophe [1731–1807].
1791. Dictionnaire raisonné universel d'histoire naturelle, etc., contenant l'histoire des animaux. 4th ed. *15 vols. 8vo.* *Lyon.*
The first edition in five volumes was published in 1765.

VAN DENBURGH, John.
1897. The Reptiles of the Pacific Coast and Great Basin, etc. *8vo. pp. 236. text illust.* *San Francisco.*
This systematic paper—issued as author's separate—was contributed to vol. V, *Occasional Papers, California Academy of Sciences.*

1922. The Reptiles of western North America. *2 vols. 128 pl.* *San Francisco.*
One of the best treatises on the subject extant.

VAN DYKE, Theodore Strong [1842–?].
1886. Southern California: its animals, birds, and fishes, etc. *8vo. pp. 12+233. T. of c.* *New York.*
Mainly a condensation of a book originally written for *The American Field.*

1895. Game birds at home. *8vo. pp. 219. T. of c.* *New York.*
The author was a semi-professional bird-killer, and in this work he tells how most effectually to accomplish the purposes of the hunter.

1902. *See* ROOSEVELT, THEODORE.

1903. (The) water-fowl family. *See* SANFORD, L. C.

1924. Upland game birds. *See* SANDYS, EDWYN.

VAN HAVRE, G. C. M.
1928. Les oiseaux de la faune belge; relevé documenté des espèces sauvages observées en Belgique. *4to. pp. 497. illust.* *Bruxelles.*
A useful and up-to-date work on Belgian avifauna.

VANHOEFFEN, ERNST [1858–].
1895. Zoologie und Botanik d. Suedpolar. Gebietes. *Berlin.*

VAN HOESEN, HENRY BARTLETT and **WALTER,** FRANK KELLER.
1928. Bibliography Practical, Enumerative, Historical. An Introductory Manual. *8vo. pp. 519. illust. index.* *New York.*

A valuable treatise that in every sense justifies its title. The bibliographical Appendix furnishes valuable information on every aspect of book-making and library administration. The whole work is a model of compact usefulness for the student.

VAN KAMPEN, P. N.
1890–1907. *See* WEBER, MAX C. W.

1923. The Amphibia of the Indo-Australian Archipelago. *8vo. pp. xii+304.* *Leiden.*

The most important modern treatise on a subject but rarely considered.

VAN LEU, PETER. **1923.** *See* ANONYMOUS. Die Zweisprach der Tiere.

VAN MONS, J. B. **1819–21.** *See* ANNALES GÉNÉRALES DES SCIENCES PHYSIQUES.

VANNI, VIOLANTE [–1775] and **others.**
1767–73. Ornithologiae Methodice Digesta, atque Iconibus aeneis ad vivum illuminatis ornata. *See* ANONYMOUS, and MANETTI, XAVERIO.

VAN OORT, E. D.
1904. Beiträge z. Osteologie d. Vogelschwanzes. *5 col. pl.* *Leiden.*

Author's reprint on the osteology of the bird's caudal appendages.

See, also, OORT, E. O. VAN.

1907. Museum d'Histoire Naturelle des Pays-Bas. Catalogue ostéologique des Oiseaux. Tome X. Première Partie. *8vo. pp. 384. 14 pl. Leiden.*

This admirable and separately published monograph deals with 3,300 skeletons of birds, 56 partial skeletons, 456 crania, representing 1,794 species.

1918–*date.* Ornithologia Neerlandica. De Vogels van Nederland. *4to.* To be completed in five vols., with text and over 400 colored plates. Issued irregularly in parts.

A magnificent monograph on the birds of Holland with a full description of all the Dutch species, an account of their habits and distribution, and complete notes on their generic and special characters.

VAN PELT LECHNER, A. A.
1911–14. Oologia Neerlandica, eggs of birds breeding in the Netherlands. With 191 plates containing 667 objects of which 617 printed in colours and 50 in collotype, taken from specimens in the author's collection. *2 vols. 4to.* Vol. I, *pp. (6)+(228). 99 pl. (86 col.). T. of c.* Vol. II, *pp. (6)+(176). 92 pl. (89 col.). T. of c. 4 indexes.* *The Hague.*

A beautiful and unusually well-designed work on the eggs of the birds of Holland. The plates consist of separate figures of single eggs mounted in panels with suitable tinted backgrounds, to show their markings and colors. The treatise was issued in seven parts, whose covers are bound in the present copy. The edition is of 250 copies, 100 in English, including the set in hand.

VARGASIA. (Sociedad de Ciencias, Físicas y Naturales de Carácas.) 1868–9.

VARIÉTÉS SCIENTIFIQUES. *See* SOCIÉTÉ DES SCIENCES NATURELLES DU MAROC.

VAUX, CHARLES MAURICE, *Baron* DE.
1898. Les grands fusils de France; histoire—portraits—châteaux—chasses au marais—plaine—bois—cuisine de chasseur—élevage—mœurs—coutumes—du gibier à plumes, etc. *folio. pp. 20+182. 50 col. pl. 265 figs. T. of c.* *Paris.*

This sumptuous volume which, *inter alia*, furnishes directions how properly to cook game, is a product of scions of the French aristocracy. It may be regarded as the *legitimate* (the preface is written by an Orléan's prince) successor of those earlier tomes on certain forms of animal slaughter that for several centuries were among the perquisites and protected privileges of 'our betters' the world over. The present copy is No. 129 of an edition limited to 500 copies.

'VEGA', VOYAGES OF THE. 1881. *See* NORDENSKIÖLD, NILS ADOLPH ERIK VON.

VELEZ DE ARCINEGA, FRANCISCO.
1597. Libro de los quadrupedes, etc. 1st ed. *8vo.* *Madrid.*

This curious little work treats of certain animals and reptiles and their uses in medicine. The author was an apothecary of Madrid who wrote also an equally scarce Latin pharmacopeia. The work is very rare; there is no copy mentioned in Osler's *Bibliotheca* nor by the *Cat. Br. Mus.* (*Nat. Hist.*).

VENABLES, EDMUND [1819–95].
1860. The Isle of Wight. *8vo. pp. 16+526.* *London.*

The vertebrata in this local guide are described by Alexander Goodman More. 225 species of birds are listed.

VENEZUELA. Universidad Central. *See* CARACAS.

VENNOR, HENRY GEORGE [1840–84].
1876. Our birds of prey; or, The eagles, hawks and owls of Canada. *4to. pp. 8+154. 30 pl. T. of c.* *Montreal.*

Short descriptions of the 25 or 26 species of these birds inhabiting Canada to date. Following these descriptions are more detailed accounts of their habits, nesting, etc.; illustrated by photographs of mounted specimens taken by Wm. Notman of Montreal.

'VENUS', VOYAGE OF THE. 1846–55. *See* DU PETIT-THOUARS, ABEL AUBERT.

VEREIN DER FREUNDE DER NATURGESCHICHTE IN MECKLENBURG.
1847–*date.* Archiv. *See also* NATURFORSCHENDE GESELLSCHAFT ZU ROSTOCK.

VEREIN DER FREUNDE DES NATURHISTORISCHEN MUSEUMS, WIEN.
1924–*date.* Veröffentlichungen.

VEREIN FÜR GESCHICHTE UND NATURGESCHICHTE DER BAAR UND DER ANGRENZENDEN LANDESTEILE IN DONAUESCHINGEN. *Karlsruhe, Tübingen.*
1870–*date.* Schriften.

VEREIN FÜR GESCHICHTE UND NATURWISSENSCHAFT VON SANGERHAUSEN UND UMGEGEND.
1896–1910. Mitteilungen.

VEREIN LUXEMBURGER NATURFREUNDE, VORM. FAUNA.
1891–1906. Mitteilungen.

VEREIN DER NATURFREUNDE, GREIZ.
1898–1911? Abhandlungen und Berichte.

VEREIN DER NATURFREUNDE, REICHENBERG.
1877?–*date.* Mitteilungen.

VEREIN FÜR NATURHEILKUNDE, BERLIN. *See* DEUTSCHER VEREIN FÜR VOLKSVERSTÄNDLICHE GESUNDHEITSPFLEGE UND FÜR NATURHEILKUNDE.

VEREIN FÜR NATURKUNDE ZU CASSEL. *See* VEREIN FÜR NATURKUNDE, KASSEL.

VEREIN FÜR NATURKUNDE, FULDA.
1865/9–1909? Bericht.

VEREIN FÜR NATURKUNDE IM HERZOGTHUM NASSAU. *See* NASSAUISCHER VEREIN FÜR NATURKUNDE, WIESBADEN.

VEREIN FÜR NATURKUNDE, KASSEL.
1837–*date.* Abhandlungen und Bericht.

VEREIN FÜR NATURKUNDE, MANNHEIM.
1834–1908? Jahresbericht.

1885. As Mannheimer Verein für Naturkunde.

VEREIN FÜR NATURKUNDE IN ÖSTERREICH OB DER ENNS, LINZ.
1870–*date.* Jahresbericht.

VEREIN FÜR NATURKUNDE AN DER UNTERWESER, GEESTEMÜNDE.
1898–1906? Jahresbericht.

1902–*date.* Separate Schriften.

—— Jahrbuch. *See* AUS DER HEIMAT; FÜR DIE HEIMAT.

VEREIN FÜR NATURKUNDE, VEGESACK.
1901–16? Mittheilungen.

VEREIN FÜR NATURKUNDE ZU ZWIKKAU.
1871–*date.* Jahresbericht.

VEREIN FÜR NATURWISSENSCHAFT ZU BRAUNSCHWEIG.
1879/80–*date.* Jahresbericht.

VEREIN FÜR NATURWISSENSCHAFTLICHE ERFORSCHUNG DES NIEDERRHEINS, CREFELD.
1913–16? Abhandlungen.

VEREIN FÜR NATURWISSENSCHAFTLICHE UNTERHALTUNG, HAMBURG.
1871/4–*date.* Verhandlungen.

VEREIN FÜR VATERLÄNDISCHE NATURKUNDE IN WÜRTTEMBERG. *Stuttgart.*
1845–*date.* Jahreshefte.

1845–78. As Württembergische Naturwissenschaftliche Jahreshefte.

VEREIN ZUR VERBREITUNG VON NATURKENNTNIS UND HOHERER WAHRHEIT. 1822–4. *Halle.*

VEREIN ZUR VERBREITUNG NATURWISSENSCHAFTLICHEN KENNTNISSE IN WIEN.
1860–*date.* Schriften.

VERHANDLUNGEN D. ACADEMIA CAES. LEOPOLD-CAROL. GERMAN. NATURAE CURIOS. *See* ACADEMIA CAES., etc.

VERHANDLUNGEN DER BASEL. NATURFORSCH. GESELLSCH. 1834–*date.*

VERHANDLUNGEN D. DARMSTADT, NATURHISTORISCHER VEREIN FÜR ... HESSEN U. UMGEBUNG. 1847–8. *See* DARMSTADT.

VERHANDLUNGEN D. GESELLSCHAFT DEUTSCHER NATURFORSCHER UND ÄRTZE. 1822–*date.* *See* GESELLSCHAFT DEUTSCHER, etc.

VERHANDLUNGEN D. GESELLSCHAFT NATURFORSCHENDER FREUNDE, BERLIN. 1819–29. (All pub.) *See* GESELLSCHAFT . . . FREUNDE.

VERHANDLUNGEN DES V. INTERNATIONALEN ORNITHOLOGEN-KONGRESSES. 1910. *See* ORNIS. *Berlin.*
This report was issued, however, as a separate publication and not as a volume of the official organ of the Congress, *Ornis*, that suspended in 1905.

VERHANDLUNGEN DES VI. INTERNATIONAL-KONGRESSES IN KOPENHAGEN, 1926.
1929. *pp. 6+641. 20 pl.* *Berlin.*
As a rule, the transactions of this Congress are published in *Ornis*, but after its suspension in 1905 they appear as independent volumes.

VERHANDLUNGEN DES NATURFORSCHENDER VEREIN IN BRÜNN. 1863–*date.* *See* BRÜNN.

VERHANDLUNGEN D. NATURHISTORISCH. VEREIN F. ANHALT. *See* ANHALT, 1840–73.

VERHANDLUNGEN D. NATURHIST. VEREIN D. PREUSS. RHEINL. U. WESTFALENS, etc. . . . **BONN.** 1844–*date.* *See* BONN.

VERHANDLUNGEN DER ORNITHOLOGISCHEN GESELLSCHAFT IN BAYERN. *See* JAHRESBERICHT DES ORNITHOL. VEREINS IN MÜNCHEN.

VERLUYS, J.
1912. Amphibia. (Wanting.)
An important excerpt from the *Handwörtb. d. Naturwiss.* Vol. I the contribution of an eminent authority on reptilia and amphibia.

VERMONT BIRD CLUB. *Burlington.*
1906–14. Bulletin. *See* BULLETIN OF THE VERMONT BIRD CLUB.

VERMONT BIRD CLUB BULLETIN. *See* BULLETIN OF THE VERMONT BIRD CLUB.

VERMONT BIRD JOURNAL. Tidings from Nature.
1884–6. *2 vols.* (all pub.?). *Rutland, Vt.*

VERNER, WILLIAM WILLOUGHBY COLE [1852–]
1909. My life among the wild birds in Spain. *8vo. pp. 16+468. 125 pl. 60 figs. 1 map. index.* *London.*

An interesting, semi-popular work in which most of the Spanish species are well described and pictured. The copy in hand is a presentation from the author and is elaborately bound by Zaehnsdorf in levant morroco, with the gilt design of a wild bird on the cover.

VERNON, HORACE MIDDLETON [1870–].
1903. Variation in animals and plants. *8vo. pp. 10+415. illust.* *New York.*

An identical British edition of the same date was published in London.

VERREAUX, JEAN BAPTISTE ÉDOUARD [1810–69]. **1865.** *See* MULSANT, MARTIAL ÉTIENNE, 1874–7.

VERREAUX, JULES [1807–73] and **DES MURS,** M. A. P. Œ.
[**1860**]. Description d'Oiseaux nouveaux de la Nouvelle-Calédonie. *8vo. pp. 27. 1 col. pl. Paris.*

1865. *See* MULSANT, MARTIAL ÉTIENNE.

******** and **MULSANT,** M. É.
[**1866**]. Essai d'une classification méthodique des trochilidés ou oiseaux-mouches. *8vo. pp. 98.* *Paris.*

VERRILL, ADDISON EMORY [1839–1911].
1862. Notes on the natural history of Anticosti. *8vo. pp. 20.* *Boston.*

Author's reprint from the *Proc. Boston Soc. of Nat. Hist.*, 1862.

1862. *See* BOARDMAN, GEORGE A.

1885. Results of the explorations made by the steamer 'Albatross' off the northern coast of the United States in 1883. *Washington.*

1902. The Bermuda Islands. An account of their . . . natural history and the changes in their flora and fauna due to man. *8vo. pp. x+548. 40 pl. 252 figs. bibliogr. index.* *New Haven, Conn.*

The volume is an amended reprint from the *Trans. of the Connecticut Acad. of Science*, vol. xi.

n.d. Catalogue of the birds found at Norway, Oxford Co., Maine. *8vo. pp. 25.*

Author's reprint from the *Proc. Essex Institute*, vol. iii.

VERRILL, ALPHEUS HYATT [1871–].
1916. Pets for Pleasure and Profit. *New York.*
1929. Thirty years in the Jungle. *New York.*

VERSUCHE UND ABHANDLUNGEN D. NATURFORSCHENDE GESELLSCHAFT.
1746–56. *See* DANTZIG.

VERWEY, JAN. **1925.** *See* OORDT, G. J. VAN.

VÎESTNIK ESTESTVOZNANÏÍA.
St. Petersburg.
1890–3. Title also in French: Revue des Sciences Naturelles.

(K.) VETENSKAPS SOCIETETEN I UPSALA.
1740–50. Acta. Continued as Nova Acta. Series 1.
1860–1. Arsskrift.
1773–1850. Nova Acta. (R.) Societas Scientiarum Upsaliensis.
1855–1904. Nova Acta. Series 3.
1905–*date.* Nova Acta. Series 4.

VETH, PIETER JAN [1814–95] and **others.**
1881–92. Midden-Sumatra. Reizen en onderzoekingen der Sumatra-Expeditie, etc. [9 vols. and Atlas.] Deel IV. 1. Fauna. Zoogdieren en Vogels. Kruipende Dieren en Visschen. *4to. 38 col. pl.* *Leiden.*

The above are the separately bound parts relating to the vertebrate zoology of this noted expedition. J. F. Snelleman wrote a preface and supplied the text for the reports on mammals and birds; A. A. W. Hubrecht supplied the letterpress for the reptiles and fishes.

VICTORIA HISTORY OF THE COUNTIES OF ENGLAND; the Bird Portions from 21 Counties.
1902–20. *2 vols. folio.* *London.*

The above are the Proof sheets which were sent to Howard Saunders for supervision, his system in his *List of British Birds* having been followed in the bird portions of the above series. Inserted are two letters addressed to him from the publishers concerning the arrangement of the History, as far as the Natural History portion is concerned.
The Bird portions are from the following Counties: Beds., Berks., Bucks., Cornwall, Cumberland, Derbyshire, Devonshire, Durham, Essex, Hants, Herts., Lancs., Norfolk, Northants, Notts., Somerset, Surrey, Sussex, Warwickshire, Worcestershire, and Yorkshire.
Among the chief contributors are J. A. Bucknill, E. Hartert, the Rev. F. C. R. Jourdain, J. G. Millais, Canon Tristram, and J. Whitaker.
The first section was published in 1902. After that date the *History* was issued in parts and divided into various sections—geography, paleontology, geology, zoology, etc. *4to. Lond.* There were, during this period, several editors and numerous contributors; but the entire work was never completed. The separate titles are given in this *Catalogue*, each under the name of the author. The copy in hand is from the Mullens Library, with two letters on local natural history inlaid.

VICTORIA. [*Australia.*] **Natural History.**
1878–90. Prodromus of the Zoology of Victoria, etc. Decades I–XX. *4to. col. illust.* *Melbourne.*

A valuable serial, figuring and describing all the indigenous animals of Victoria.

VICTORIAN NATURALIST. (**Field Naturalists' Club of Victoria.**) **1884–***date.* *Melbourne.*

VIDENSKABS-SELSKABET. OSLO.
1858–1924. Forhandlinger.
1894–*date.* Skrifter - Math. - Naturvidenskabelig Klasse.

VIEILLOT, LOUIS JEAN PIERRE [1748–1831].
1802. Oiseaux dorés, ou à reflets metalliques. 2 tom. *See* AUDEBERT, J. B.

1805–?. Histoire naturelle des plus beaux oiseaux chanteurs de la zone torride. *folio. pp. 4+114. 72 pl. index.* *Paris.*

Descriptions, with 72 fine colored plates by Prêtre, of a number of tropical weaver-birds, finches, and tanagers. According to Engelmann the work appeared in 12 *livraisons* between 1805 onward and another doubtful date.

1807. Hist. Naturelle des Oiseaux de l'Amérique septentrionale, etc. *2 vols. folio. 131 col. pl.* *Paris.*

A remarkably good example of an early contribution to the literature of South American ornithology. The copy in the E.S.W. Library has all the colored plates in a fine state of preservation.

1816. Analyse d'une nouvelle Ornithologie élémentaire. *8vo. pp. 70.* *Paris.*

This very scarce and fundamental work of reference was reprinted (notes by H. Saunders) by the Willughby Society, 1883. The library copy has a most interesting provenance, having been purchased by Dr. Charles W. Richmond at the sale of the A. Milne Edwards Library. It bears the latter's autograph together with MS. addenda by that author himself. There are 120 new genera proposed in this work and some 18 new species—hence its importance to the systematist.

1817. C. J. Temminck, observations sur la classification méthodique des Oiseaux, et remarques sur l'analyse d'une nouvelle ornithologie élémentaire. *8vo. pp. 2+60.* *Amsterdam.*

A critique of the views of C. J. Temminck by Vieillot.

******** and **OUTART,** P. L.
1820–6. La Galerie des Oiseaux du cabinet d'histoire naturelle du jardin du roi. *2 vols. 4to. Paris.*

This fine ornithologic atlas was published (irregularly) in 82 *livraisons*. The present copy has only 118 plates of which 99 are colored; there are at least 300 colored and 33 black-and-white plates in the complete set, which is now excessively rare.

******** and **others.**
1820–30. Faune Française, etc. *8 vols. and 4 vols. atlases. 8vo. and 4to.* (Wanting.) *Paris.*

This encyclopedic, systematic treatise was published without title-pages. Moreover, only the text for the birds (written by the author himself) is complete. The collaborators were, for mammals and reptiles, A. G. Desmarest, and for fishes, H. M. D. Blainville. Eighty pages and four colored plates are devoted to mammals; 443 pages and 88 colored plates to birds; 18 colored plates to reptiles; and 96 pages and 22 colored plates to fishes. The *livraisons* were irregularly issued, their dates of publication having been fixed by Sherborn and Woodward (*Ann. and Mag. Nat. Hist.*, 1901, p. 493).

******** and **AUDEBERT,** J. B.
1830–40. Storia naturale generale, etc. *See* AUDEBERT, J. B. and VIEILLOT, L. J. P.

1883. Vieillot's Analyse d'une nouvelle Ornithologie élémentaire (1816). Edited by H. Saunders. *8vo. pp. iv+70.* *See* WILLUGHBY SOCIETY. *London.*

VIENNA. *See also* WIEN.

VIENNA. K. Akad. der Wissenschaften.
1886. Die Internationale Polarforschung, 1882–3, etc. *3 vols. 4to.* *Wien.*

The *Beobachtungs-Ergebnisse* include an account of the Austrian Polar Station Jan Mayen (an island between Spitsbergen and Iceland) in whose neighborhood most of the zoological collections and observations were made. The third volume (*pp. 132, 9 pl.*) contains an account of the ichthyology by F. Steindachner; ornithology and mammalogy by F. Fischer and A. von Pelzeln. A number of the *Theile* were also issued as author's separates.

VIENNA. Naturhistorisches Hof (Staats) Museum.
1886–*date.* Annalen. Nos. 1–32 as Naturhistoriches Hofmuseum.

1917–*date.* Denkschriften.

1924–*date.* Veröffentlichungen.

1921–*date.* Geologisch-Paläontologische Reihe.

VIENNA. K. K. Oesterreichisches Handels-Museum.
1895. Japanische Vogelstudien. *folio. 12 pl. (col.).* *Wien.*

Studies (7 in. × 9 in.) in color of various Japanese birds, mounted on cards, and contained in a large portfolio.

VIENNA. Ornithologischer Verein.
1877–97. Mittheilungen. (Beiblatt, 1884–5.) Vols. I–XXI. *Wien.*

From vol. XIII continued as Die Schwalbe; then continued as Neue Folge. Die Schwalbe; Berichte des Comités für Ornithologische Beobachtungs-Stationen in Oesterreich, 1898–1913.
See DIE SCHWALBE.

VIENNA UNIVERSITÄT. Naturwissenschaftlicher Verein.
1903–14. Mitteilungen.

VIENNA. Verein der Freunde des Naturhistorischen Museums.
1924–8. Veröffentlichungen. Hft. 1–17 in 1. *8vo. illust.* *Wien.*

VIENNA. Verein zur Verbreitung naturwissenschaftlicher Kenntnisse.
1863–1901. Schriften. Vols. 1–14. *Wien.*

VIENNA. K. K. Zoologisch-Botanische Gesellschaft.
1901–24. Abhandlungen. *Wien.*

VIERTELJAHRESSCHRIFT DER NATURFORSCHENDEN GESELLSCHAFT ZU ZÜRICH.
1856–1927. Jahrg. 1–71.

VIGORS, NICHOLAS AYLWARD [1785–1840] and **HORSFIELD,** T.
1827. A description of the Australian Birds . . . of the Linnean Society, etc. *4to.* *London.*

Author's reprint from the *Trans. Linn. Soc.*, vol. xv.

1832. (A) century of birds. *See* GOULD, J.

1839. Ornithology of the 'Blossom'. *See* BEECHEY, F. W.

VINCELOT, M.
1865. Essais etymol. sur l'ornithologie de Maine-et-Loire. *? Paris.*

VINCENT, J.
1898. Nos oiseaux. *8vo. pp. 17+215. 37 figs. 3 append. index.* *Bruxelles.*

A treatise in which the musical notation of bird song is given.

VINCENT OF BEAUVAIS [1190?–1264].
[Not after **1478**]. Speculum naturale. Press of Adolf Rusch. *2 vols. folio.* [O.] *Strasburg.*

This work forms part of an immense, cyclopedic compilation popular in the Middle Ages that the author called *Speculum majus, aut Imago mundi*. The treatise was divided into *Speculum naturale, doctinale et historiale*; a fourth, *morale*, being added by a later writer. It is a rare and interesting incunable. The *Cat. Br. Mus.* (*Nat. Hist.*) gives the date of its single-volume edition as ? 1473.

VINCI, LEONARDO DA [1452–1519].
1909. Il Codice di L. da Vinci della biblioteca di Lord Leicester, etc. *folio. pp. 33+242. 73 pl.* (Wanting.) *Milano.*

This excellent printing of a remarkable, English-owned MS. by a famous sculptor was done at the expense of the *Istituto Lombardo di Scienze e Lettere*. It is of interest to students of comparative anatomy.

VIRGIN, CHRISTIAN ADOLF [1797–1870]. **1857–1910.** *See* SWEDEN.

VISSCHER, Nikolaas.

1659. Avium vivae et artificiosissimae Delineationes Amstelodami impressae apud Nicholaum Visscher [Jr.], Anno 1659. *8vo. 24 pl.* *Amstelodami.*

A curious and very rare atlas of birds of the world by a well-known Dutch etcher. There are over 100 easily identifiable figures of birds on 24 copper plates, with either the generic or specific names (or both) of each engraved on the surface of the plate. The engraved frontispiece depicts the sale of birds—alive and dead—in the marketplace.

VLAAMSCH NATUUR- EN GENEESKUNDIG CONGRES. *Antwerp, Ghent, Deventer.*

1897–1913? Handelingen.

VOCABULARIUS RERUM.

1478. [?Wenceslaus Brack.] *folio. 126 ff.* Johann Keller. Hain 3699. Pellechet 2806. Osler 142. *Augsburg.*

The first dated edition of a Latin-German Dictionary, often misascribed to Wenceslaus Brack. An important section gives the Latin and German names for the known animals and briefly describes them. Apparently this extremely rare incunable is the first production of the Augsburg printer, Johann Keller, whose registered output is only four books.

VOEGLER, Robert.

1895. Der Präparator und Konservator. *8vo. pp. 148. 36 figs.* *Magdeburg.*

The second edition of a popular work on taxidermy, including the preparation of bird skins and group-making for museums.

VOELTZKOW, Alfred [1860–].

1906. Reise in Ostafrika . . . in 1903–5, etc. Wissenschaftliche Ergebnisse. *5 vols. 4to. illust.* (Wanting.) *Stuttgart.*

A valuable, systematic study of African zoology, in which the collection of avifauna from East Africa and the neighboring islands (Madagascar in particular) are described by A. Reichenow, the reptiles and amphibia by F. Siebenrock and O. Boettger.

VÖGEL FERNER LÄNDER. (Periodical.)

1927. Jahrg. I. *Hannover.*

VOGELFREUND, DER. Monatsschrift zum Schutze und zur Erforschung der heimischen Vogelwelt.

1908. *4to. 12 nos.* *Münster.*

VOGELLIEBHABER.

1890–8. (All pub.?) Der Blätter für Vogelkunde, -Zucht und -Pflege, inbesondere der Stubenvögel. *8vo.* Bimonthly. Edited by C. Wahl. *Leipzig.*

(DIE) VOGELWELT.

1879–98. (All pub.?) Zeitschrift über Vogelschutz, Züchtung von ausländischen Sing- und Schmuckvögeln, insbesondere von Harzer Canarien und über Geflügelzucht; Organ des Landesverbandes der Vereine der Vogelfreunde in Württemberg. *4to. illust.* *Heilbronn.*

VOGT, Carl Christoph [1817–95].

1842. Embryologie des Salmones. *4to and folio. pp. 196. 18 pl.* *Neuchâtel.*

One of the early systematic studies of this noted naturalist, carried on in collaboration with J. L. R. Agassiz.

1851. Zoologische Briefe. Naturgeschichte der lebenden und untergegangenen Thiere. *2 vols. 8vo. 1,492 figs. in text.* *Frankfurt am Main.*

1851. Untersuchungen über Thierstaaten. *8vo. pp. 16+248. 2 pl.* *Frankfurt am Main.*

1852. Bilder aus dem Thierleben. *8vo. pp. 6+452. figs. in text.* *Frankfurt am Main.*

1864. Lectures on man: his place in creation, and in the history of the earth. *8vo. pp. 22+475. illust.* *London.*

English translation (with notes) by James Hunt of the author's *Vorlesungen ueber den Menschen*, Giessen, 1863.

****** and SPECHT,** F.

1883. Die Säugethiere im Wort und Bild. *illust.* *Munich.*

The plates and text of this excellent work have been widely copied in other popular editions, translations, and compilations.

1884. Les Mammifères. *4to. illust.* *Paris.*

A French edition of the two authors' *Säugethiere im Wort und Bild*, 1883.

1887. Natural history of Animals, etc. *2 vols. 4to.* *London.*

Issued in six parts. An English edition of Vogt and Specht's *Die Säugethiere* translated by Chisholm. The Blacker Library has also a Subscriber's edition, 1889, London.

****** and YUNG,** É.

1888–94. Traité d'Anatomie comparée pratique. *2 vols. 8vo.* *Paris.*

****** and HOFER,** Br.

1909. Die Süsswasserfische von Mitteleuropa. *4to. 31 col. pl. atlas.* *Leipzig.*

This treatise, with the accompanying atlas, is by some regarded as the best German work on the subject.

VOICE OF HUMANITY. (Association for Promoting Rational Humanity towards the Animal Creation.) **1833?** *London.*

VOIGT, Alwin [1852–].

1894. Excursionsbuch zum studium der vogelstimmen. Praktische anleitung zum bestimmen der vögel nach ihrem gesange. *12mo. pp. 8+213. illust. index.* *Berlin.*

The third edition of a well-known, popular work on bird notes and song.

1908. Deutsches Vogelleben. *12mo. pp. 4+156. index.* *Leipzig.*

The object of this book is to furnish a guide to the birds of Germany, their nesting habits and voice-production, arranged according to their different habitats and landscapes.

1913. Excursionsbuch zum studium der vogelstimmen. Praktische anleitung zum bestimmen der vögel nach ihrem gesange. *12mo. pp. 8+327. figs. in text. index.* *Leipzig.*

The sixth edition of a popular book on bird-song.

1921. Wasservogelleben, ein Führer zum Strande. *12mo. pp. 109. 29 text-figs. T. of c.* *Leipzig.*

1922. Unsere Singvögel. 2nd ed. *8vo. pp. (8)+186. 2 col. pl. 10 figs. index.* *Leipzig.*

VOIGT, Friedrich Siegmund [1781–1850].

1831–43. Das Thierreich, etc. *6 vols. 8vo.*

This is one of the numerous translations of Cuvier's *Règne Animal*, with notes and emendations by the author.

VOITELLIER, Charles.

1925. Aviculture. Les races de volailles; poules, pintades, dindons, canards, oies, pigeons. *12mo. pp. 287. 176 pl. and text-figs.* *Paris.*

VOLGER, EDUARD.

1877. Der Vogelfreund als Vogelkenner. *8vo. pp. 8+307. T. of c.* *Hannover.*

A well-written treatise on the care and culture of various species of caged birds. From the Cabanis-Reichenow collection.

VOLZ, WILHELM THEODOR AUGUST HERMANN [1870–].

1906. Zoologische Ergebnisse einer Reise in Ostasien und auf den Sandwich Inseln. *illust.* *Jena.*

VORDERMAN, A. G.

1882–5. Bataviasche Vogels. *6 pts. and 1 pt. index.* Pt. I, 1882. Pt. II, 1882. Pt. III, 1882. Pt. IV, 1883. Pt. V, 1883. Pt. VI, 1884. Pt. [VI], Index, 1885.

A separately entitled and repaged reprint, constituting an important, systematic review of the birds of the Dutch East Indies. The monograph was printed (and finally issued) with a separate index to all the numbers. The copy in hand is in the original wrappers from the P. L. Sclater collection, and has laid in a letter from the author.

VOS, GEORGE H.

n.d. Birds and their nests and eggs, found in and near great towns. Series I–III. *8vo.* Series I, *pp. ix+148. 58 pl. T. of c.* Series II, *pp. vii+223. 61 pl. T. of c.* Series III, *pp. vii+240. 35 pl. T. of c. index to three series.* *London.*

A popular and excellently illustrated treatise on urban and suburban British birds, including a description of their nests and eggs.

VOSMAER, ARNOUT [1720–99].

1766–1804. Natuurkundige beschryving [Regnum animale], etc. *4to.* *Amsterdam.*

A collection of 33 separates, papers all in Dutch and most of them on the zoology of the Far East, although quite a few treat of American fauna. A French edition (of which there are several variants) was issued in 1804. Practically all of these volumes or parts have been separately issued. The Blacker Library has a number of them, and the Compiler refers students to that collection for any of the Author's monographs. Professor Arthur Willey remarks of the collection that it contains many type illustrations, colored. The first is the African Wart Hog called the *Africaansch Breedsnuitig Varken.* This original drawing is not noticed in the *British Museum Catalogue of Pachydermatous Mammalia* (1869, see p. 353). There is also a noteworthy description of the Orang-outang from Borneo, with two plates, dating from 1778.

VOUGT, E. B.

1655. De Spiritu animali. *Upsala.*

An early and rare essay on animal psychology.

VOYAGES, FRENCH. *See also* FRANCE, and under names of vessels.

1824–42. Voyage autour du monde . . . executé sur . . . l'Uranie et la Physicienne, pendant . . . 1817–20. Par M. L. de Freycinet. *7 vols. text and 4 vols. atlas.*

One of the most important of the French governmental expeditions devoted to scientific inquiry. The zoology report is a classical document by Quoy and Gaimard descriptive of many species in their day new to science. It is furnished in a volume of 4+712 pages with an atlas of 96 plates, 1824–6.

1826–30. Voyage autour du monde . . . sur . . . la Coquille pendant . . . 1822–25. *text, 6 vols.; atlas, 5 vols. 4to and folio.* *Paris.*

The vertebrate zoology of this Voyage was written entirely by R. P. Lesson in 2 vols. text and an atlas of 157 col. pl. Many of the projected reports were never published.

1830–5. Voyage . . . de l'Astrolabe . . . pendant 1826–29, etc. *14 vols. text and 7 vols. atlas. 8vo, 4to, and folio.* *Paris.*

One of the most famous of the great scientific expeditions, especially from the standpoint of vertebrate zoology. It is especially noted for the large number of new species recorded and fully described by J. R. C. Quoy and J. P. Gaimard, the first three volumes having been written by these noted zoologists, also the chief zoologists of the Uranie et Physicienne Voyage (q.v.). The titles of the former contributions are Tom. I, L'Homme—Mammifères—Oiseaux, *pp. 50+268, 59 col. pl.*, 1830–3; Tom. II et III, Mollusques [et Poissons], *107 col. pl.*, 1832–5. The voyage was around the world and included New Zealand whose flora is also described and pictured.

1831–46. Voyage aux Indes-Orientales par le nord de l'Europe . . . pendant 1825–29, publié par M. C. Bélanger. *4 vols. text and 2 vols. atlas. 8vo and folio.* (Wanting.) *Paris.*

The zoology of this scientifically important expedition (in a volume of *pp. 39+535* and atlas of *40 col. pl.*) was edited by M. F. Cuvier. The mammals of the regions visited were treated systematically by M. I. Geoffroy Saint-Hilaire; birds and reptiles by R. P. Lesson; and the fishes by A. Valenciennes.

1833–9. Voyage autour du monde par les mers de l'Inde et de Chine . . . sur la Favorite pendant 1830–32, etc. *5 vols. text and 2 vols. atlas. 8vo and folio.* *Paris.*

Of this important scientific expedition J. F. T. Eydoux wrote one part of vol. I on 'Zoologie' and (with J. F. J. Laurent) another on marsupial mammalia. This was followed by supplementary reports by J. F. T. Eydoux and F. L. P. Gervais on the zoology of the voyage, *pp. 200 and 60 col. pl.*, the parts on mammals and birds appearing in 1836, on reptiles and fishes in 1837.

1835–44. Voyage dans l'Inde, par V. Jacquemont, pendant les années 1828 à 1832. *4 vols. text and 2 vols. atlas.*

The mammalia and aves collected during this expedition were described by I. Geoffroy Saint-Hilaire in vol. IV and depicted in vol. II of the Atlas.

1835–47. Voyage dans l'Amérique méridionale (le Brazil, la République Argentine . . . Chili, Peru, etc.) pendant 1826–33 par A. d'Orbigny. *7 vols. text and 2 vols. atlas. 4to. maps.* *Paris.*

The zoological sections of this important work are of the greatest value to research students interested in the fauna of South America. A. d'Orbigny and P. Gervais described the mammalia, with little text—*pp. 32*—but the Atlas depicts *22 col. pl.*; d'Orbigny alone had charge of the birds, *pp. 3+395, 67 col. pl.*; reptiles by G. Bibron, *pp. 12 and 9 col. pl.*; while fishes were described by A. Valenciennes, illustrated by *16 col. pl.* The subdivisions of this valuable report were irregularly issued.

1838–52. Voyage en Islande et au Groenlande, executé pendant 1835–36 sur la Recherche . . . publié . . . sous la direction de M. P. Gaimard. *7 vols. text and 4 vols. atlas. 8vo and folio.* *Paris.*

This expedition, under the direction of the French government, as one of the activities of the *Commission Scientifique du Nord*, is of value mainly for the list of birds by R. Angles.

1840–64. Voyage autour du monde sur . . . la Vénus, pendant 1836–1839. *11 vols. text and 4 vols. atlas. 8vo. and folio.* (Wanting.) *Paris.*

Another scientific expedition under the French government whose zoologic discoveries were fully reported by competent writers. The mammalia were systematically described by I. Geoffroy Saint-Hilaire; the birds by F. Prévost and O. des Murs; reptiles by Duméril; fishes by A. Valenciennes—all illustrated in an atlas of 79 col. pl.

1840–66. Voyage autour du monde executé pendant 1836–37 sur la Bonite, commandé par M. [A. N.] Vaillant, etc. *15 vols. text and 3 vols. atlas. 8vo and folio.* *Paris.*

An important voyage for the student of vertebrated animals. Vaillant is supposed to have written most of the text with the aid, in the case of the mammals, of P. Gervais; birds, of de Blainville; reptiles, of Bibron; fishes, of Valenciennes. These parts appeared irregularly, the sections on mammals and birds appearing in 1841, the remainder in 1842.

1841–54. Voyage au Pôle Sud et dans l'Océanie sur l'Astrolabe et la Zélée . . . pendant 1837–40, etc. *23 vols. and atlas, 7 vols. 8vo and folio.* *Paris.*

The history of this famous expedition was written by Dumont d'Urville in 10 vols. and 2 atlases; the anthropology by Dumoutier, C. E. Blanchard, Hombron, and C. H. Jacquinot; mammals and birds by Jacquinot and J. Pucheran; reptiles and fishes by Jacquinot and H. Guichenot. In the atlases mammals were illustrated by 29 col. pl.; birds, 37 col. pl.; reptiles, 12 col. pl.; fishes, 5 col. pl.

[**VOYAGES, FRENCH** (*contd.*)]

1842–55. Voyages . . . en Scandinavie, en Laponie, etc., pendant 1838–40, sur . . . la Recherche, . . . publiés sous la direction de M. P. Gaimard, etc. *16 vols. text and 5 vols. atlas. 8vo and folio.* (Wanting.) *Paris.*

The zoology of these expeditions (part of the activities of the French government's *Commission Scientifique du Nord*) was exploited in several volumes and an atlas of 86 col. pl.

1845–51. Voyage en Abyssinie . . . pendant 1839–43 par une commission scientifique composée de MM. T. Lefebvre, [*et al*]. *6 vols. and 3 vols. atlas. 8vo and folio.* *Paris.*

The reports of this classic expedition include the natural history of Abyssinia by well-known zoologists, among them O. Des Murs and F. Prévost on the mammals and birds; reptiles and fishes by Guichenot. The zoological atlas contains 40 col. pl. Dates of issue of the parts in the zoological (IVth) volume, are given in the *Annals and Mag. of Nat. Hist.*, Ser. VII, vol. viii.

1847–50. Voyage en Abyssinie, dans les provinces du Tigré, du Samen et de l'Amhara, etc. (1839–43). *8vo and folio.* *Paris.*

The reports of this French governmental expedition were issued irregularly in parts, the mammals being 'enumerated' by F. E. Guérin-Méneville, and the birds by the same writer in collaboration with De la Fresnaie.

1897–8. Mission . . . dans la Haute Asie. List of birds by É. Oustalet. *Paris.*

VRIEND DER NATUUR. 1893–5? *Turnhout.*

VROLIK, Willem [1801–63].

1841. Recherches d'anatomie comparée sur le chimpansé. *folio. pp. 4+51. 7 pl.* *Amsterdam.*

WAGLER, Johann Georg [1800–32].

1824. Serpentum Brasiliensium species novae. Publiée par J. de Spix . . . écrite par J. Wagler. *4to.* *See also* SPIX, J. B. VON.

The author, a brilliant naturalist who gave promise of a long life of usefulness, died at the early age of 32, leaving many a scientific project unfulfilled.

1827. Systema avium. Pars I. *8vo. pp. 411. addend.* *Stuttgartiae et Tubingae.*

An unfinished classic describing many new genera and species of birds. The present copy is from Prof. Reichenow's library. This item is becoming very scarce.

1884. Wagler's Six Ornithological Memoirs from 'Isis', 1829–32. Edited by P. L. Sclater. *8vo. pp. iv+(i)+137+(i).*

The numeration of the columns of the original is also given. *See also* WILLUGHBY SOCIETY.

WAGNER, Antoni.

1921–3. Prace Zoologiczne Polskiego Panstwowego Muzeum Przyrodniczego. (Annales Zoologici Musei Polonici Historiae Naturalis.) Zeszyt 1–4. *Warszawa.*

WAGNER, Johann Andreas [1797–1861]. **1840–44.** *See* SCHREBER, J. C. D. VON.

WAGNER, Moritz Friedrich [1813–87].

1841. Reisen in der Regenschaft Algier in . . . 1836–8, etc. *3 vols. atlas. 8vo and 4to.* (Wanting.) *Leipzig.*

During his travels in Algiers the author collected and subsequently described a number of mammals and birds, while H. Schlegel reported on the amphibia.

WAGNER FREE INSTITUTE OF SCIENCE OF PHILADELPHIA.

1887–*date*. Transactions.

WAIT, Walter Ernest.

1916–22. Notes on the birds of Ceylon. *5 pts. in 1. 8vo.* *Colombo, Ceylon.*

A collection of papers (typed title-page) separately bound and utilized in preparing Wait's *Manual of the birds of Ceylon*. The volume in hand was presented to the E.S.W. Library by the author.

1925. Manual of the birds of Ceylon. [Supplement of the Ceylon Journal of Science.] Fly-leaf guards printed with explanations of plates. Map of Ceylon. Indexes of English and scientific names of species. *4to. pp. 4+496. 20 pl. glossary.* *Colombo.*

The only systematic account of the birds of the Island since the publication of the comprehensive *History* by Legge. A full description is given of all the Sinhalese species (in trinomial nomenclature) with a brief statement of their habits, distribution, and nidification. The E.S.W. Library has an interleaved copy with copious notes made by Casey Wood and other Ceylon ornithologists during a two years' residence of the former on the Island.

1925. Manual of the birds of Ceylon. *2 vols. 4to.* Vol. I, *pp. (6)+264. front. 1 fig. index.* Vol. II, *pp. 265–496. 20 pl. glossary. 2 indexes.* *Colombo, Ceylon.*

A presentation, interleaved and autographed copy of the original edition given Dr. Casey Wood by the author. Attached to the interleaves are many newspaper clippings, as well as typewritten and MS. notes by Dr. Casey Wood. Pockets at the end of each volume also contain further notes. Scattered throughout both volumes are photographs and water-color drawings of birds by W. J. Belcher, as well as pressed leaves and other portions of a Tailor Bird's nest showing method of sewing together the component parts.

1925. Manual of the birds of Ceylon. Typewritten manuscript. *4to. pp. 546.* *Colombo.*

The MSS. of W. E. Wait's *Manual of the Birds of Ceylon*, 1925, enclosed in a box constructed of Sapu (*Michelia champaca*), one of the most serviceable timber-woods of the Island. Medallions on the box were cut by a native village artist, and the title printed on a native press. The two birds shown on the medallions are the Sacred Goose of Lanka, portrayed on Kandyan and other monuments for over twenty centuries.

1927–30. Coloured plates of [48 indigenous] birds of Ceylon by G. M. Henry; with a short description of each bird by W. E. Wait. *3 pts. folio. 48 col. pl.* *London.*

In 1925 Wait's comprehensive *Manual of the Birds of Ceylon* was published by the Ceylon Government. Its purpose was to supplement Legge's classic work on the subject, now out of print. This object was achieved in most respects except that financial considerations made it impossible to illustrate Wait's book in color. Through the interest of Dr. Casey Wood the publication of the present work, the main purpose of which was to provide a series of faithfully executed colored plates of the indigenous birds of the island, became possible. The plates are not issued in systematic sequence, nor are they numbered; and no pagination has been provided with the letterpress, thus enabling the plates to be rebound in accordance with the arrangement adopted by Wait in his *Manual*, when the work is completed. The original paintings, by G. M. Henry, are now in the E.S.W. Library.

WAITE, Edgar Ravenswood [1866–].

1909. The Subantarctic Islands of New Zealand. *2 vols. 4to. See* CHILTON, C. *Canterbury, N.Z.*

WALCOTT, Charles Doolittle [1850–].

1890. Fauna of the lower Cambrian or Oleuellus zone. *4to. pp. 266. illust.* *Washington.*

Author's reprint from the *Annual Report of the U.S. Geol. Survey*, vol. 10.

WALCOTT, John [*fl.* 1778–1822].

1788–9. The Figures, Description, and History of Exotic Animals, comprised under the Classes Amphibia and Pisces of Linnaeus. *4to. 60 pl. with text beneath.* *London.*

The present copy was presented by Walcott's son to a friend. It has two original drawings by the author himself of the Kite-fish and Six-lined Lizard inserted.

1789. Synopsis of British birds. *2 pts. (vols.) in 1. 4to. 315 ff. 255 copper pl. Continuous pagination in MS. and added MS. T. of c.* *London.*

A full description, including diagnosis, habits, etc., with the portraits of 255 birds of Great Britain. The author tells us that 200 plates are copies of his own drawings, the remainder from the Parkinson and Latham Museums. To these are added a very few plates (indicated by an asterisk) from Brisson and others. The copy in hand possesses a well-made MS. table of contents by a former owner, who also writes the following note, quoted from Donovan: 'I am credibly informed that no more than 25 copies of this work were struck off. The plates were subsequently destroyed. The figures I know to be genuine and to be in general copied from the birds in the Leverian Museum. I offered 4 guas. for a copy to Thompson nearly 30 years ago, but I could not then procure it.'

1789. Synopsis of British birds. *2 vols. 8vo.* Vol. I, *pp. (298). 122 figs.* Vol. II, *pp. (332). 133 figs.* *London.*

The present copy differs from others of the same date (q.v.) by the insertion of three small water-color drawings of birds by the author, one of which is signed. Otherwise the text and number of copper plates (255) is the same.

WALDEN, *Viscount* ARTHUR [1824–78].

1875. A List of Birds known to inhabit the Philippine Archipelago. *4to. 11 col. pl. map.* *London.*

A classic catalogue with notes on 219 species. Author's reprint from the *Trans. Zool. Soc.*, London. *See also* TWEEDDALE, *Marquess of.*

WALDRAPP, DER. Mitteilungen des Deutschoesterr. Ornithologischen Institutes und der Vogelschutz-Station Salzburg.

1919–21. Jahrg. I–III. *4to.*

Der Waldrapp (of which the Compiler has seen only the first three volumes) contains mostly reports of observations and scientific articles by the editor on local ornithology. Count von Tschusi zu Schmidhofen, E. Streseman, J. Roth, and others have also contributed papers.

WALDUNGUS, WOLFFGANGUS [1554–1621].

1619. Lagographia. Natura leporum, etc. *4to. pp. 82. illust.* *Ambergae.*

WALES. National Museum. Department of Zoology.

1913–15. Report on Marine and Freshwater Investigations.

1922–*date*. Report on Marine and Freshwater Investigations. New series.

WALKER, ERNEST PILLSBURY [1891–] and **GRAVE,** B. H.

1913. (The) birds of Wyoming, &c. *See* GRAVE, B. H. and WALKER, E. P.

WALKER, JAMES J. and **JOURDAIN,** F. C. R.

1926. The natural history of the Oxford district. *12mo. pp. 8+336. 18 figs. T. of c.* *London.*

Compiled for the use of members attending the meeting of the British Association at Oxford, 1926.

WALKS AND TALKS WITH NATURE. *See* RECORDS OF WALKS AND TALKS WITH NATURE.

WALL, FRANK.

1921. Ophidia taprobanchia or the Snakes of Ceylon. *8vo. pp. 22+581. illust. map.* *Colombo.*

A very important and up-to-date account of these interesting reptiles.

WALLACE, ALFRED RUSSEL [1823–1913].

1853. A narrative of travels on the Amazon and Rio Negro, etc. *8vo. pp. 8+541. 8 pl. 2 maps* *London.*

One of the earliest scientific explorations of this noted naturalist. He describes many species of vertebrates.

1858. On the Tendency of Varieties to depart indefinitely from the Original type. [O.] *London.*

A brochure famous in the annals of evolutionary doctrine; it was presented jointly with Darwin's paper to the Linnaean Society of London.

1869. The Malay Archipelago: the land of the orang-utan, and the bird of paradise. A narrative of travel, with studies of man and nature. *2 vols. 8vo.* Vol. I, *pp. 23+478. 3 pl. 5 maps. 24 figs. T. of c.* Vol. II, *pp. 524. 5 pl. 5 maps. 20 figs. append. index.* *London.*

A fascinating account of the author's travels during 1854–62. Of birds 8,050 specimens were collected, many of which are described. A second (American) edition was issued the same year; a third in 1872, with others in one volume in 1886, 1890 (10th ed.), and still another in 1902.

1870. Contributions to the Theory of Natural Selection. *8vo.* [O.] *London.*

1871. Contributions to the Theory of Natural Selection. A series of essays. 2nd ed. *8vo. pp. 16+384.* *London.*

In this brochure the author informs us, *inter alia*, wherein several of the original concepts of evolution have been modified.

1876. The geographical distribution of animals, with a study of the relations of living and extinct faunas as elucidating the past changes of the earth's surface. *2 vols. 8vo.* Vol. I, *pp. 21+503. 14 pl. 4 col. maps index.* Vol. II, *pp. 8+607. 7 pl. 2 maps (col.). T. of c. index.* *London.*

To those more interested in facts than in theories, this book will serve as a kind of dictionary of the geography and affinities of animals. By means of the copious Index, the native country, the systematic position, and the numerical extent of every important and well established genus of land-animal may be at once discovered, —information (until the publication of the author's monograph) scattered through hundreds of other volumes.

1876. The geographical distribution of animals. *2 vols. 8vo.* *New York.*

An American reprint of the London edition.

1876. Die geographische Verbreitung der Thiere. *2 vols. pp. 1,274. 7 maps. 20 pl.* *Dresden.*

A German edition of the famous work on the geographical distribution of animal life, translated by A. B. Meyer.

1878. Tropical nature and other essays. *8vo. pp. 13+356. index.* *London.*

A work detailing the characteristics of the tropical, as distinguished from the temperate zones, concerning which many erroneous ideas are still current.

1879. Islands, as illustrating the laws of the geographical distribution of animals. *8vo. pp. 18.* *Manchester.*

Given as one of the *Science Lectures for the People*, Series XI, 1879–80.

1880. Island life; the phenomena and causes of insular faunas and floras. *8vo. pp. 17+526. 3 pl. 23 figs. index.* *London.*

A popular and attractive supplement to the author's *Geographical Distribution of Animals*. A second edition was issued in 1892.

1881. Island life. *8vo.* *New York.*

The first American edition of this fascinating work.

1886. The Malay Archipelago. *8vo. pp. 16+653. 7 pl. 10 maps. 44 figs. append. index.* *London.*

A popular one-volume edition. The subsequent editions of this famous work do not greatly vary in contents from the copy in hand.

1889. Darwinism, an exposition of the theory of natural selection, with some of its applications. 2nd ed. *8vo. pp. 16+494. 1 pl. map. text-figs.* [O.] *London.*

[**WALLACE**, A. R. (*contd.*)]

1891. Natural selection and tropical nature. New ed. *8vo. pp. 504.* *London.*

1892. Island life. *8vo. pp. 20+563. 3 col. pl. 23 figs. index.* *London.*

Second, revised edition.

1900. Studies scientific & social. *2 vols. 8vo.* Vol. I, *pp. 16+532. 89 figs. index.* Vol. II, *pp. 8+535. 25 figs. index.* *London.*

Reprints of important articles from reviews and other periodicals from 1865–99.

1902. The Malay Archipelago.

This printing is almost identical with the tenth edition of 1890, which has not been annotated although several copies are in the McGill libraries.

1903. Man's Place in the Universe. 1st ed. *8vo.* *London.*

1905. My life; a record of events and opinions . . . with facsimile letters, illustrations and portraits. *2 vols. 8vo.* Vol. I, *pp. 12+435. 27 pl. 2 maps.* Vol. II, *pp. 8+459. 18 pl. 9 figs. index.* *London and New York.*

1911. The world of life; a manifestation of creative power, directive mind and ultimate purpose. 3rd ed. *8vo. pp. 16+408. illust.* *London.*

1916. Alfred Russel Wallace; letters and reminiscences, by James Marchant. *2 vols. 8vo.* Vol. I, *pp. xi+319. 4 pl.* Vol. II, *pp. 8+291. 6 pl. append. index.* *London.*

A selection of this famous naturalist's writings, 1853–1912. The historic correspondence between Darwin and Wallace on Natural Selection, etc., with new additions is here included for the first time as a whole.

WALLACE, HAROLD FRANK.

1913. The Big Game of Central and Western China. *8vo. pp. 20+318. maps and illust. index.* *London.*

A scientific account of many Chinese mammals and their habitat.

WALLACE, ROBERT L.

[**1893**]. The canary book: containing full directions for the breeding, rearing, and management of canaries and canary mules. 3rd enlarged ed. *2 vols. 8vo.* Vol. I, *pp. 6+208. 7 pl. 47 figs.* Vol. II, *pp. 209–429. 6 pl. index.* *London.*

The first edition was published in 1879, and there have been several since that date. The treatise is generally regarded as the prime authority on its subject.

WALLENIUS, JOHAN FREDERIC [1765–1836].

1810–19. Fauna Fennica sive enumeratio Animalium, quae alit terra Finlandiae insulaeque ei adjacentes. *3 pts. 8vo. pp. 72.* *Aboae.*

This important inaugural thesis 'presided over' by Prof. Wallenius, on the fauna of Finland, is not often seen with its complete three parts, that are apparently now and then published separately. See *Cat. Br. Mus. Nat. History*, p. 2259, where only the first part, on mammals and birds, is listed.

WALLIS, SAMUEL [1728–95].

1773. An account of a Voyage round the World in 1766–78. *4 vols. 4to.* *London.*

WALPOLE-BOND, JOHN ARTHINGTON [1878–].

1904. Bird life in wild Wales. *12mo. pp. 15+283. 60 pl. T. of c.* *London.*

Vol. No. 6 of the *Brightwen Series.*

WALTER, ALICE HALL and **WALTER**, H. E.

1904. Wild birds in city parks. *See* WALTER, H. E. and WALTER, A. H.

WALTER, E. W.

1928. Biology of the Vertebrates. *New York.*

WALTER, F. K. **1928.** *See* VAN HOESEN, H. B.

WALTER, HERBERT EUGENE [1867–] and **WALTER**, ALICE HALL.

1904. Wild birds in city parks; being hints on identifying 145 birds, prepared primarily for the spring migration in Lincoln Park, Chicago. *16mo. pp. 66. 2 charts. glossary. index.* *Chicago.*

A revised (third) edition; the first dated 1901. This edition adds details about 45 birds—the majority of which are shore and water birds—and a simple field key. The charts show the relative abundance of the birds and the height of the migration in Lincoln Park.

1910. Wild birds in city parks; being hints on identifying 200 birds, prepared primarily for the spring migration in Lincoln park, Chicago, but adapted to other localities. 4th ed., with chart and key. *8vo. pp. 91. 1 chart. index.* *St. Johnsbury, Vt.*

1928. Biology of the Vertebrates; a comparative Study of Man and his Animal Allies. *8vo.* *New York.*

WALTER, JOHANN ERNST CHRISTIAN [? 1800–61]

1828. Nordisk Ornithologie, eller troværdige efter Naturen egenhændig tegnede, stukne og colorerede Afbildninger af danske, faeröiske, grölandske og islandske Fugle med tydsk og dansk Beskrivelse. Text in Danish and German. *folio. pp. 72. 60 col. pl.* *Kjøbenhavn.*

A systematic description, with a full synonymy, of Norwegian birds, comprising 77 genera and 277 species. The colored illustrations are admirable. An early, important and rare contribution to Scandinavian ornithology. The present copy is from Paul Leverkuhn's library and bears his autograph.

WALTER, LEOPOLD.

[**1896**]. Unsere einheimischen Finkenvögel, ihre Beschreibung, Wartung, Pflege und Zucht. *8vo. pp. 93. 7 text-figs. index.* *Leipzig.*

n.d. Unsere einheimischen kerbthierfressenden Stubenvögel. *8vo. pp. 155. illust. index. Leipzig.*

One of many pamphlets on the care of domestic insectivorous birds.

WALTON, IZAAK [1593–1683].

[**1653**] **1876.** The Compleat Angler, or the Contemplative Man's Recreation. *pp. 10+16+246. portr.* *London.*

This is one of several facsimile editions of the first printing (1653) of this famous book, which contains much that is valuable for the student of British ichthyology. The work vies with Gilbert White's *Natural History of Selborne* in popularity and in number of editions. Of Walton's volume literally hundreds of editions and reprints have appeared during the past 250 years. A few of these, among them the following, are shelved in the libraries of McGill.

1822. Walton and Cotton's Complete Angler, with notes by Sir John Hawkins. *8vo. 15 pl.* Original bds. and advert. *London.*

1824. Walton and Cotton's Complete Angler. John Major's ed. *8vo. figs. in text. pl.* *London.*

1825. The Complete Angler, two parts, the first by Izaak Walton, the second by Chas. Cotton. *pp. 16+314+[6]. pl.* Printed by Wm. Pickering. *London.*

1846. The Complete Angler, with Lives and Notes by Sir John Hawkins. Ed. by James Rennie. *pp. 4+328. pl. and portr. Manchester.*

1856. The Complete Angler, ed. by Edward Jesse. Bohn's Library. *pp. 19+[3]+496. pl. and portr. London.*

Another of Bohn's editions (1870) identical with this printing is also in a McGill library.

1896. The Compleat Angler, etc. With a preface by Richard Le Gallienne. *pp. 10+[16]+246. illust. London.*

Another facsimile reprint of the first (1653) edition.

[1925]. The Complete Angler, with illustrations by James Thorpe. *pp. 16+221. portr. and pl. London.*

n.d. The Complete Angler, with an Introduction by C. H. Dick. *pp. 20+245. London.*

WANGANUI PUBLIC MUSEUM. *Wanganui, New Zealand.*

1895–*date*. Annual Report.

WANG CH'I 王圻 [16th cent.].

1609. San ts'ai t'u hui **三才圖會**; Illustrated encyclopedic work, including material on animals, worms, birds, etc. *24·4×16 cm.* [G.]

WANG CHO 王晫.

1834. Lung ching **龍經**; A short compilation on the dragon. *pp. 4.* (In *Chao tai ts'ung shu* **昭代叢書甲集第五十卷.**) *24·2×15·5 cm.* [G.]

WANG CH'UNG 王充 [A.D. 27–97]

1626. Lun hêng **論衡**; A treatise on contemporary beliefs, customs, manners, etc., including several essays on animals and insects (**商蟲講瑞**). *27×17·5 cm.* [G.]

WANG YING-LIN 王應麟 [1223–96].

ca. **? 1500.** Yü hai **玉海**; An encyclopedic work, containing material on animals, birds, insects, etc., chüan 198–9; published in the Ming Dynasty (1368–1644). *27×17 cm.* [G.]

WARBLER. (Long Island Natural History Club.) 1903–21. *Floral Park, N.Y.*

This periodical, from 1904 to 1913, was the official organ of the *Long Island Natural History Club* and (1907–13) *Bulletin of the John Lewis Childs Museum and Library of Natural History.* The editors were (1903) H. C. Munson and (1905–13) J. L. Childs. The magazine assumed the title of *Warbler* on the issue of vol. 3. It was published bimonthly, 1903–4; quarterly, 1905–6; annually, 1907–10, 1913. Publication was suspended 1911–12 and publication ceased in 1921.

WARD, A. E. Paintings of the birds of Fiji. *See* ORIGINAL DRAWINGS; BELCHER, W. J.

WARD, ARCHIBALD ROBINSON [1875–] and **GALLAGHER,** B. A.

1920. Diseases of domesticated birds. *8vo. pp. 12+333. 69 figs. 2 indexes. New York.*

This work deals not only with diseases of poultry, but treats also of the ostrich, cage-birds, and wild birds semi-domesticated in Zoological gardens.

WARD, CHARLES HENSHAW [1872–].

1927. Charles Darwin; the man and his warfare. *8vo. pp. 12+472. 27 pl. append. index. Indianapolis.*

This is undoubtedly the most complete and satisfactory life of the illustrious scientist yet written.

WARD, FRANCIS.

1919. Animal life under water. *8vo. pp. 10+178. 53 pl. (5 col.). index. London.*

The principal thesis of this work holds that an account of fish-eating birds and other animals cannot be considered complete unless described as seen from below the surface of the water. The birds whose under-water views are described are Cormorants, Penguins, Herons, Gulls, and Kingfishers.

WARD, HENRY B.

1924. Banding White Pelicans.

Reprinted from *The Condor*, vol. xxvi, pp. 136–40, July 1924.

WARD, R. H. **1868.** *See* AMERICAN NATURALIST.

WARD, ROWLAND [? 1848–1912].

1923. Sportsman's handbook to collecting and preserving trophies and specimens. 11th ed. *12mo. pp. 10+74. 1 pl. 75 figs. index. London.*

The first edition was issued in 1880.

[WARD, THOMAS.]

?1728. The Bird-Fancier's Recreation, being curious remarks on the Nature of Song-Birds, etc. A New Edition. *1 vol. 12mo. pp. 89. front. London.*

This old and rather scarce handbook for the dealer and aviculturalist is generally listed, as in this *Catalogue*, under ANONYMOUS, its author and date of publication being uncertain. *See* Zimmer, *Ayer Cat.*, p. 662.

WARD, THOMAS.

1907. Rambles of an Australian Naturalist. *8vo.*

These interesting observations in natural history were made by Paul Fountain from Ward's notes and Journals.

WARD'S NATURAL HISTORY BULLETIN. 1881–9. *Rochester, N.Y.*

WARE, JOHN [1795–1864]. **1824.** *See* SMELLIE, W.

WARING, S.

1832. The minstrelsy of the woods; or, Sketches and songs connected with the natural history of some of the most interesting British and foreign birds. *8vo. pp. xi+227. 17 pl. (col.). London.*

A popular but accurately written work with fairly good colored illustrations.

WARREN, BENJAMIN HARRY [1858–].

1888. Report on the birds of Pennsylvania. *8vo. Harrisburg.*

The first printing of an important monograph.

1890. Report on the birds of Pennsylvania, with special reference to their food-habits. 2nd ed. *8vo. pp. 14+434. 99 pl. (col. after Audubon). 1 diagr. append. bibliogr. index. Harrisburg, Pa.*

An enlarged and revised version of the first (1888) edition. The check-list of the latter is omitted but there is an extensive appendix (pp. 333–424) containing additional papers of importance by well-known ornithologists.

[**WARREN,** B. H. (*contd.*)]

1896. Taxidermy; how to collect, skin, preserve and mount birds. *8vo. pp. 128. 11 figs. index.* *Harrisburg, Pa.*

****** and PEARSON,** L.

1897. Diseases of Poultry. *See* PEARSON, L.

1919. The Passenger Pigeon in Pennsylvania. *See* FRENCH, J. C.

WARREN, EDWARD ROYAL [1860–].

1910. The Mammals of Colorado, etc. *pp. 200. 3 maps. 81 illust. (from photos.).* *New York.*

A valuable contribution to a study of the mammalia of western North America. It includes the author's *Notes and Further Notes* on the same subject, published several years previously.

1914. The birds of El Paso County, Colorado. *See* AIKEN, C. E. H. and WARREN, E. R.

WARREN, JOHN [1874–1928].

[**1911**]. Development of the Paraphysis and Pineal Region in Reptilia. *8vo. illust.* [O. 4186.] *Baltimore.*

WARREN, JOHN COLLINS [1778–1856].

1854. Remarks on some fossil impressions in the sandstone rocks of Connecticut River. *8vo. pp. 54. 3 figs.* *Boston.*

1855. The *Mastodon giganteus* of North America. 2nd ed. *folio. pp. 8+260. 30 pl.* *Boston.*

WARREN, ROBERT and **USSHER,** R. J.

1900. (The) birds of Ireland, etc. *See* USSHER, R. J. and WARREN, R.

WARSAW UNIVERSITET. Zootomicheskaîa Laboratoriîa.

1892–1914? Raboty.

WARWICKSHIRE NATURAL HISTORY AND ARCHAEOLOGICAL SOCIETY, WARWICK, ENGLAND.

1836–84. Annual Report.

WARWICKSHIRE NATURALISTS' AND ARCHAEOLOGISTS' FIELD CLUB. 1887?–9? *Warwick, England.*

WASHBURN COLLEGE, TOPEKA, KANSAS. Laboratory of Natural History.

1884–90. Bulletin. (All pub.)

WASHINGTON ACADEMY OF SCIENCES.

1911–*date*. Journal.

1899–1911. Proceedings.

WASHINGTON, BIOLOGICAL SOCIETY.

1880–*date*. Proceedings. *See* PROCEEDINGS . . . WASHINGTON.

WASHINGTON, CARNEGIE INSTITUTION OF.

1902–30. Publications. *Washington, D.C.*

WASHINGTON UNIVERSITY.

1915–*date*. Publications in Mathematics and Physical Science.

WATERHOUSE, CHARLES OWEN [1843–].

1902–12. Index Zoologicus (No. II) . . . names of Genera and Subgenera proposed for use in Zoology as recorded in the 'Zoological Record'. *8vo.* *London.*

One of the most important of modern tractates in zoology.

WATERHOUSE, FREDERICK HERSCHEL [1845–].

1885. The dates of publication of some of the zoological works of the late John Gould. *8vo. pp. 17+59. T. of c.* *London.*

1889. Index generum avium. A list of the genera and subgenera of birds. *8vo. pp. 6+240.* *London.*

A most important classic for the student of systematic ornithology. The copy in hand is interleaved and supplied with notes by 'F. N., 1889'. Supplements to this Index have been issued from time to time by C. W. Richmond in the *Proc. U.S. National Museum.* The E.S.W. Library has a presentation copy from R. Bowdler Sharpe to Charles Chubb.

WATERHOUSE, GEORGE ROBERT [1810–88].

1838–9. *See* ZOOLOGY OF THE VOYAGE OF H.M.S. BEAGLE.

1846–8. A natural history of the *Mammalia. 2 vols. 8vo. 45 col. pl.* *London.*

Vol. I. *Marsupiata,* or pouched animals. Vol. II. *Rodentia,* or gnawing *Mammalia.*

WATERTON, CHARLES [1782–1865].

1825. Wanderings in South America, the north-west of the United States and the Antilles in 1812, 1816, 1820 and 1824. With instructions for the preservation of birds. *4to. pp. 7+326. 2 pl. figs. in text.* *London.*

The *editio princeps* of a natural history classic. The author is mostly known for his studies of South American flora and fauna. He resided in British Guiana, the United States, and the B.W.I. at various times.

1838. Essays on Natural History, chiefly ornithology . . . with an autobiography of the author. *8vo.* (Wanting.) *London.*

The first edition, first series. Subsequent editions and series appeared at intervals for the succeeding 20 years.

1844–57. Essays on natural history, chiefly ornithology. With an autobiography of the author. *3 vols.* Series I–III. *8vo.* Lettered on back: 1st series; 2nd series; 3rd series. First series, 1845, 6th ed. Preface date, 1837. *pp. 83+334.* Second series, 2nd ed., 1844. Preface date, 1844. *pp. 143+204.* Third series, 1857. Preface date, 1857. *pp. 47+290.* *London.*

One of the numerous printings or editions of a famous series of essays on zoological—mainly ornithological—subjects. The present volumes constitute the complete work, uniformly lettered and bound, but the title-pages indicate different 'editions' in each instance. Two impressions are known to have been issued during 1844, the fifth edition and the second series, first printing.

1846. Essays on natural history, chiefly ornithology. *8vo. pp. 142+204. front. append.* *London.*

A third edition of the second series.

[**1870**]. Natural History Essays. Edited with a Life of the Author, by Norman Moore. *8vo. portr. illust.* [O. 4196.] *London.*

****** and WOOD,** *Rev.* J. G.

1879. Wanderings in South America, etc. *8vo. pp. 16+520. 107 figs. index.* *London.*

The present edition contains the *Wanderings,* with a biography and explanatory index compiled by the editor of every animal and tree mentioned by Waterton.

WATFORD NATURAL HISTORY SOCIETY. 1875–9. *See also* HERTFORDSHIRE NATURAL HISTORY SOCIETY.

WATKINS, MORGAN GEORGE.

1896. Gleanings from the natural history of the ancients. *8vo. pp. 13+258. T. of c.* *London.*

This collection includes a Homeric bestiary, and Virgil as an ornithologist.

WATKINS, WATKIN [1869–].

1897. Wild birds protection acts. *See* MARCHANT, JAMES ROBERT VERNAM.

1903. The birds of Tennyson. *8vo. pp. 8+202. 10 pl. index.* *London.*

A useful anthology for the naturalist. Presentation copy from the author with autograph.

WATSON, ALFRED E. T.

1893. (The) partridge. *See* MACPHERSON, HUGH A.

1903. Snipe and woodcock. *See* SHAW, L. H. DE VISME.

WATSON, JOHN, *ed.*

1893. Ornithology in relation to agriculture and horticulture by various writers. *8vo. pp. 8+220. T. of c. append.* *London.*

WATTERS, JOHN J.

1853. The natural history of the birds of Ireland, indigenous and migratory. *12mo. pp. 15+299. index.* *Dublin.*

A systematic and descriptive catalogue including an account of the migration, geographic distribution, and habits of 261 species. The work was suggested by William Thompson as a cheaper treatise than his *Natural History of Ireland*, 1849.

WAYNE, ARTHUR TREZEVANT [1863–1930] and **REA,** PAUL M., *ed.*

1910. Birds of South Carolina. With an introduction by the editor. *8vo. pp. 21+254. front. bibliogr. index.* *Charleston.*

An annotated list of 309 species of coast birds of the State, followed by another list of 28 species from the interior; with a further catalogue of 22 hypothetical species. Bound in with the volume in hand are copies of the *Bulletin of the Charleston Museum*, the periodical in which much of the letterpress of the treatise first appeared.

WEBB, PHILIP BARKER [1793–1854] and **BERTHELOT,** SABIN [1794–1880].

1835–44. Histoire naturelle des Îles Canaries, etc. *3 vols. and atlas. 4to. and folio.* *Paris.*

According to the *Cat. Br. Mus.* (*Nat. Hist.*) this large work was issued in 106 fortnightly parts. Vol. II contains the vertebrate zoology, 12 pages being given to mammalogy by P. Barker-Webb; ornithology by Barker-Webb, S. Berthelot, and A. Moquin-Tandon, *pp. 48 and 4 col. pl.*; herpetology by P. Gervais, *pp. 5 and 1 pl.*; ichthyology by A. Valenciennes, *pp. 109, 26 pl.*

1841. Ornithologie canarienne. Zoologie II. 2e partie. *folio. pp. 48. 4 col. pl.* *Paris.*

A portion of the *Histoire naturalle des Îles Canaries*, apparently used as a prospectus for the remainder of the work. On the cover of the volume it is stated that the work is to be issued to subscribers and completed in three large volumes, the second of which will treat, *inter alia*, the zoology of the Canaries. The plates are probably first states and are fine portraits of the birds of the islands.

WEBBER, CHARLES WILKINS [1819–56].

1854. Wild scenes and song-birds. *4to. pp. 10+347. 20 col. pl.* *New York and London.*

This is probably the first edition of a collection of chapters on nature-study, most of them about birds. With the exception of some trivial changes in the title-page the 1858 edition (also in the E.S.W. Library) is identical with the above.

WEBER, FRIEDRICH A.

1774–84. Naturgeschichte der Vögel, etc. *4 vols. 11 pts. folio. 43 (instead of 46) pl.* *Heilbronn.*

An early, rare, and important treatise, not listed by the *Cat. Br. Mus.* (*Nat. Hist.*).

WEBER, JOHANN CARL [1801–] and **KRANZ,** C. A.

1870. Die Fische Deutschlands und der Schweiz. 2nd ed. *8vo. pp. 61. 67 col. pl.* *München.*

A handy manual of middle and north European fishes.

WEBER, MAURICE.

1915. Monographie des hirudinées sud-américaines. (Neuchâtel University thesis.) *8vo. pp. 134. 6 pl. 52 text-figs.* *Neuchâtel.*

A full account of the swallows of South America illustrated by excellent plates. The copy in hand is a presentation from the writer.

WEBER, MAX CARL WILHELM [1852–1926?].

1890–1907. Zoologische Ergebnisse einer Reise in Niederländisch Ost-Indien, etc. *4 vols. in 5 pts. 8vo. 93 col. pl. 3 maps. many text-figs.* *Leiden.*

This interesting and well-known record of the natural history of the Dutch East Indies devotes parts of three volumes to vertebrate zoology. The mammals of Malaysia are described (1890) by the author and F. A. Jentink; the reptilia by the author and T. W. van Lidth de Jeude (1891); the birds by J. Büttikofer; the fishes by the author, and the amphibia by P. N. van Kampen.

1901–*date*. Siboga-Expeditie, etc. *4to.* Monog. I→ *Leiden.*

So far as published there is little to interest the vertebrate-zoologist in these otherwise important biological monographs, based on collections made during the voyage of the Dutch Government vessel 'Siboga'. They have been regularly issued to date.

1904. Die säugetiere. Einführung in die anatomie und systematik der recenten und fossilen *Mammalia.* 1st ed. *4to. pp. 11+866. text-figs.* *Jena.*

1906. *See* WICHMANN, C. E. A.

******** and **BEAUFORT,** L. F. DE.

1911–28. The fishes of the Indo-Australian Archipelago. *5 vols. 8vo. 2 portr. Over 500 figs.* *Leiden.*

This important monograph is to be completed in 8 vols. It will then rank with the indispensables for research students.

1913. Die Fische der Siboga-Expedition. *4to.* *Leyden.*

An important section of this scientific expedition whose vertebrate zoology was not described until the invertebrates had been reported upon.

*******, BURLET,** H. M. DE, and **ABEL,** OTHENIO [1875–].

1927–8. Die Säugetiere. Einführung in die Anatomie und Systematik der Recenten und Fossilen Mammalia. Bd. 1. Anatomischer Teil (H. M. de Burlet). *pp. xv+444. 316 figs.* 1927. Bd. II. Systematischer Teil (Othenio Abel). *pp. xxiv+898. 573 figs.* 1928. *Jena.*

This is the second and much enlarged edition of a well-known monograph edited by two mammalogists of repute (probably) after Weber's death.

WEBSTER, G. WATMOUGH.

1895. Twenty-five Photographs of the Life-History Groups of Birds in the Grosvenor Museum. *folio. T. of c.* *Chester.*

This fine series has descriptive text with each plate.

WEBSTER, PETER.

1912. Wild birds at home. Fourth series. Sixty photographs from life of British Birds and their nests. *32mo. pp. 76. 60 pl.* *London.*

WEBSTER, William Henry Bayley.
1834. Narrative of a voyage to the southern Atlantic Ocean, in the years 1828, 29, 30, in H.M. sloop Chanticleer. *2 vols. 8vo.* Vol. I, *pp. 11+399. front.* Vol. II, *pp. 8+398. 1 fig. append. index.* *London.*

WECKMANN-WITTENBURG, P. F.
1922. Ornithologisch-photographische Naturstudien. *8vo. pp. 7+192. 78 figs. T. of c.* *Bielefeld.*
Practical instructions how best to photograph birds and their nests.

WEDDERBURN, John Wallis.
1859. (The) naturalist in Bermuda. *See* JONES, J. M.

WEED, Clarence Moores [1864–] and **DEARBORN,** Ned.
1903. Birds in their relations to man; a manual of economic ornithology for the United States and Canada. *8vo. pp. 8+380. 19 pl. 96 figs. (5 maps). 4 append. index.* *Philadelphia.*
A useful and very thorough treatise on the economic ornithology of the United States and Canada.

1924. Birds in their relations to man. *8vo. pp. 8+414. 142 figs. (2 maps). 4 append. index.* *Philadelphia.*
This (third) edition has an extra chapter on bird houses and how to build them, illustrated with 48 figures in the text.

WEGNER, Gottfried [1644–1709].
1699. Tractatus curiosus . . . de Rattis. *4to.* [O. 6529.] *Gedani.*
A good account of the rat from the historical standpoint.

WEIDENREICH, Franz [1873–].
1927. Rasse und körperbau, mit 201 abbildungen. *Berlin.*
A comprehensive, pictorial study in human and comparative anatomy.

WEIGEL, Oswald. **1896–*date*.** *See* ANZEIGER FÜR BOTANIK UND ZOOLOGIE.

WEIGOLD, H.
1930. Der Vogelzug auf Helgoland graphisch dargestellt. *4to. pp. 24. 91 pl.*
This is No. 1 of the *Abhand. a. d. Gebiete d. Vogelzugforschung.*

WEINREICH, Wilhelm G. [1886–].
1925. Verzeichnis der laufenden ausländischen Zeitschriften. *Frankfort (Main).*
A valuable catalogue of current, non-German periodicals, including those on natural history.

WEIS, Henning [1892–1922].
1923. Life of the harrier in Denmark; observations from breeding places in west Jutland. *4to. pp. 80. 44 figs.* *London.*
An excellent account of the home-life of the Marsh, and Montagu's Harrier, the only two species now breeding in Denmark, with beautiful illustrations from photographs by the author. It is believed that the strain the author put upon himself by spending weeks at a time in the marshy wilderness (where these birds nest) during the years 1913–18, undermined his constitution and hastened his death at the early age of 30.

WEISMANN, Friedrich Leopold August [1834–1914].
1877. Das Thierleben im Bodensee. *4to. pp. 31. 1 pl.* *Lindau.*
1882. Studies in the Theories of Descent. With a prefatory Notice by Charles Darwin. *2 vols. 8vo. 8 col. pl.* *London.*
This is an English translation by R. Meldola of the original *Studien*, published in Leipzig, 1875–6. Professor Weismann was one of the most famous naturalists in Germany.

WELLER, C.
1900. Catalogue of a collection of birds' eggs. *8vo. pp. 2+64.* *Copenhagen.*
The specimens numbered over 7,600, representing 1,758 species.

WELLES, E. E.
[1850]. Series of Interesting Etchings on Natural History. *4to.*

WELLINGTON, N.Z. DOMINION MUSEUM.
1923–*date*. Bulletin.
1922–*date*. Monographs.

WELLINGTON FIELD NATURALISTS' CLUB. *See* ONTARIO NATURAL SCIENCE BULLETIN.

WELLS, Carveth.
1925. Six years in the Malay jungle. *8vo. pp. 13+261. 16 pl. append. bibliogr.* *Garden City, N.Y.*
A very interesting narrative of the author's experiences, compiled from his notebooks.

WELLS, Herbert George [1866–] and **DAVIES,** A. M.
1923. Text-book of zoology. *12mo. pp. 8+487. 207 figs. append. index.* *London.*
The sixth (revised) edition of an excellent manual.

WELLS, John Grant.
1886. A list of the birds of Grenada, West Indies. *8vo. pp. 4+12.* *Grenada.*
Most of the birds obtained by the author were sent to the Smithsonian Institution, and determined by G. N. Lawrence. The list embraces 93 species, two of which were new to science. The present copy is an autographed presentation from the author to P. L. Sclater.

WELLS, Thomas.
1911–13. (The) British bird book. *See* KIRKMAN, F. B. B.

WERNER, Chas. J.
1918. History of Long Island. *See* THOMPSON, BENJAMIN FRANKLIN.
The third edition; the first appeared in 1839.

WERNER, Johann Carl.
1842. Atlas des oiseaux d'Europe d'après C. J. Temminck et dessinés par J. C. Werner. *4 vols. 8vo. 516 col. pl.* *Paris.*
The first issue of Werner's celebrated *Atlas* to Temminck's *Manuel d'Ornithologie*, 1820–40, a portion of the former having been published (in parts) during the issue of the latter. The above series of colored plates is described in the second edition of the *Manuel*, which may account for the small amount of textual description in the *Atlas*. The present copy consists of 52 *livraisons* with most of their original, dated wrappers, and as such is a rare and valuable work of reference for the student. A two-volume edition, with 530 plates, appeared at Paris and London in 1848, but the illustrations are said to be inferior to those of the first issue.

WERNERIAN NATURAL HISTORY SOCIETY. *Edinburgh.*
1808–38. Memoirs.

WERNIGERODE. Naturwissenschaftlicher Verein des Harzes in Wernigerode.
1886–96. Schriften. (All pub.)

WESENBERG-LUND, C.
1923. Fran Sjoe och Strand. *Stockholm.*
A translation into Swedish of the original work.

WESLEY SCIENTIFIC SOCIETY, LONDON.
1887–9. Wesley Naturalist.

WEST AMERICAN SCIENTIST. (San Diego Society of Natural History.) 1884–1919. *San Diego, Cal.*

WEST AUSTRALIAN NATURAL HISTORY SOCIETY. *See* NATURAL HISTORY AND SCIENCE SOCIETY OF WESTERN AUSTRALIA, PERTH.

WEST CHESTER BIRD CLUB.
1918–21. Bulletin. *3 vols. 8vo. illust.* *West Chester, Pa.*

WESTELL, WILLIAM PERCIVAL.
[**1900**]. A year with nature. *8vo. pp. 16+276. 173 figs. T. of c.* *London.*
A collection of essays and magazine articles.

1905. British bird life, being popular sketches of every species of bird now regularly nesting in the British Isles. *8vo. pp. 35+338. 60 text-figs. T. of c.* *London.*

1908. Country Rambles, etc. *London.*

[**1911**]. The young ornithologist; a guide to the haunts, homes and habits of British birds. *8vo. pp. 15+311. col. front. 65 text-figs. index.* *London.*

[**1918**]. My life as a naturalist. *8vo. pp. 18+268. 103 figs. append. index.* *London.*

?1927. British Mammals. *12mo. pp. 127. 2 col. pl. 26 text-figs. index.* *London.*
One of the popular *Abbey Nature Books* for the amateur.

(**?**) **1928.** British Reptiles, Amphibians, and Fresh-water Fishes. *12mo. pp. 9+113. 64 text-figs. index.* *London.*
One of the *Abbey Nature Books* for amateurs.

n.d. Nature photography and some British mammals and birds. *pp. (8)+174. 39 figs. index.* *London.*

n.d. The Songs of a Nature Lover. *4to. pp. 221. index.* *London.*

WESTERN FIELD AND STREAM. *See* FIELD AND STREAM (ST. PAUL, MINN.).

WESTERN NATURALIST. *Madison.*
1887–8. (All pub.)

WESTERN OOLOGIST. Devoted to the Study of Birds, their Nests and Eggs. Ed. by W. S. Burnham and L. H. Cannon, Milwaukee, Wis.
1878. Vol. I, Nos. 1–8. *8vo.* (All pub.)
The *Western Oologist* (1885) was probably a revival of this magazine.

WESTERN OOLOGIST, THE. Devoted to the Study of Birds, their Nests and Eggs. Published Monthly by F. M. Sherin, Milwaukee, Wis.
1885. Nos. 1–3. *8vo.* (All pub.)
Contains notes by H. A. Berry, W. N. Clute, C. A. Keeler, F. C. Green, and others. A periodical of the same name also appeared (and suspended) about 1878. Perhaps this is the journal said to have continued *The Oologist* of Milwaukee.

WESTERN ORNITHOLOGIST, THE.
1900. *8vo.* Bimonthly. Editor: C. C. Tyron. *Avoca, Iowa.*
This periodical is the continuation of the 4 vols. of the *Iowa Ornithologist*, 1894–1900. Vol. V, 1900, Nos. I–III, Jan., Feb.–May, June. *pp. 66. 1 pl.* (All pub.)
In addition to the editorial staff, M. E. Peck, B. H. Wilson, J. N. Clark, Wm. Savage, and other writers contributed papers to this short-lived but excellent journal.

WESTERN RESERVE NATURALIST.
1893. *Geneva.*

WESTERN YUNNAN EXPEDITION.
1878. Anatomical and Zoological Researches. By John Anderson. *2 vols. 4to. pp. 25+980+41. 81 col. pl.* *London.*
This important work furnishes the zoological results of two expeditions to S.W. China (Burma border) in 1868 and 1875. The vertebrata are described and depicted by John Anderson, except *Chiroptera* by G. E. Dobson.

WEST KENT NATURAL HISTORY, MICROSCOPICAL AND PHOTOGRAPHIC SOCIETY. 1873?–1903? *London.*

WESTPREUSSISCHER BOTANISCH-ZOOLOGISCHER VEREIN, DANZIG.
1878–*date*. Bericht.

WESTON, G. E.
1911. Our canaries. *See* ST. JOHN, CLAUDE.

n.d. Cage-bird hybrids. *See* HOULTON, C.

WESTWOOD, THOMAS [–1888] and **SATCHELL,** THOMAS.
1883. Bibliotheca piscatoria. *8vo. pp. 24+397.* *London.*
This is a valuable work of reference to books on fishes, fisheries, angling, etc., with bibliographical notes and an appendix.

WETMORE, ALEXANDER [1886–].
1916. Birds of Porto Rico. *8vo. pp. 134. 1 col. pl. text-figs.* *Washington.*
This admirable monograph first appeared as *Bulletin* 326 *of the Biological Survey.*

1921. Wild ducks and duck foods of the Bear River marshes, Utah. *8vo. pp. 20. 4 pl. T. of c.* *Washington.*
Author's reprint, *Bulletin of the Biological Survey*, No. 936.

1923. Migration records from wild ducks and other birds banded in the Salt Lake Valley, Utah. *8vo. pp. 14+(2). 2 pl. map.* *Washington.*
This *Bulletin of the Bureau of the Biological Survey*, author's reprint, is really a study in bird migration as related to the protection of game birds.

1925. Food of American phalaropes, avocets, and stilts. *8vo. pp. 20. 3 pl. T. of c.* *Washington.*
Author's reprint of *Dept. of Agriculture Bulletin*, No. 1359.

******** and **WOOD,** CASEY A.
1925–6. Birds of the Fiji Islands. *See* WOOD, CASEY A. and WETMORE, ALEXANDER.

1926. Descriptions of additional fossil birds from the miocene of Nebraska. *8vo. pp. 5. 6 figs.* *New York.*
An account of further remains of birds collected by Albert Thomson in the Snake Creek quarries of north-western Nebraska. Author's separate from *American Museum Novitates*, No. 211.

[**WETMORE,** A. (*contd.*)]

1926. Observations on the birds of Argentina, Paraguay, Uruguay, and Chile. *8vo. pp. 4+448. 20 pl. index.* *Washington.*

This excellent systematic treatise forms *Bulletin* 133 of the (*U.S. National Museum*) *Smithsonian Institution* and is the result mostly of personal observation and examination of the material in the native habitat of the birds whose history is here recorded. The volume in hand is a donation to the E.S.W. Library from the author.

1927. The migrations of birds. *12mo. pp. 8+217. front. 6 figs. (5 maps). T. of c.* *Cambridge, Mass.*

This fascinating volume is practically a revision of six lectures delivered before the Lowell Institute in Boston. The whole work teems with original matter, as little reference as possible being made to the work of others. It is the most thorough treatise on avian migration hitherto published in America, and should be read in conjunction with J. Landsborough Thompson's *Problems of Bird Migration*, 1926.

WETTERAUISCHE GESELLSCHAFT FÜR DIE GESAMMTE NATURKUNDE ZU HANAU.

1809–19. Annalen. (All pub.)

1843–*date.* Bericht.

WETTSTEIN, Otto von.

1917. Wissenschaftliche ergebnisse . . . von F. Werner unternommenen zoologischen Expedition nach dem Anglo-Ägyptischen Sudan (Kordofan) 1914. II. Bearbeitung der auf der Expedition gesammelten Vögel und Säugetiere. *folio. pp. 2+139. 4 pl. 14 text-figs. 1 map.* *Wien.*

Author's special separate of an important contribution to our knowledge of the mammals and birds of the Sudan, 215 of the avian species being listed and described briefly but systematically. Presentation copy to Prof. A. Reichenow.

WHARTON, Henry Thornton [1846–95].

1877. A list of British birds; the genera arranged according to Sundevall's method, the nomenclature revised. *8vo. pp. 4+20. index.* *London.*

A rare pamphlet and useful list, with systematic and local names, of British birds. The present copy is from the Mullens Library.

WHEATON, John M. [?1841–87].

1860. [Catalogue of the birds of Ohio.] *8vo. pp. 21.*

Author's edition specially paged from the *Ohio Agricultural Report.* The Catalogue contains the names of 285 species.

1882. Report on the birds of Ohio. *8vo. pp. 188–628. 3 append. bibliogr. glossary.* [*Columbus.*]

This work was long delayed in publication. It was begun in 1873, started through the press in 1879, completed in 1881, and actually published late in 1882. It was revised in 1903 and brought up to date by Lynds Jones in the *Ohio State Acad. Science, Special Papers*, No. 6, *The Birds of Ohio.* A manual of the birds found in Ohio with a Check-List of 298 species.

WHEELER, George Montague [1842–].

1875. Annual report upon the geographical explorations and surveys west of the one hundredth meridian, in California, Nevada, Nebraska, Utah, Arizona, Colorado, New Mexico, Wyoming, and Montana; being appendix LL of the annual report of the chief of engineers for 1875. *8vo. pp. 6+196. index.* *Washington.*

An important, fundamental treatise on the bird life of southwestern United States. The appendix gives an annotated catalogue of the birds of the Surveys by H. W. Henshaw. There are full descriptions of species with their synonymies, measurements, and other field notes. The present volume is a specially arranged excerpt, a presentation copy from Lieut. Wheeler.

WHEELER, J. F. G. **1925.** *See* 'Discovery' Reports.

WHEELOCK, *Mrs.* Irene Grosvenor.

1902. Nestlings of forest and marsh. *8vo. pp. 8+257. 12 pl. 56 figs. T. of c.* *Chicago.*

1910. Birds of California; an introduction to more than three hundred common birds of the state and adjacent islands. *8vo. pp. 18+578. front. (col.). 9 pl. 1 diagr. 1 map. 75 figs. index.* *Chicago.*

A short account of the distribution, breeding range, and nidification of each species is given, with a supplementary list of California birds compiled by Harry C. Oberholser to January 1, 1909.

WHEELWRIGHT, Horace William [1815–65].

1859. Comparatif förteckning på Skandinaviens och Stor-Britanniens Fåglar. Comparative list of the Birds of Scandinavia and Great Britain. *4to. pp. 18.* Printed in double columns, Swedish and English. *Carlstad.*

The author is better known under his pen-name of 'An Old Bushman'. The present copy (no title-page) is from the libraries of Thos. Parkin and W. H. Mullens, and has a portrait and appended a MS. biography (by the former) of Wheelwright.

1861. Bush wanderings of a naturalist; or, Notes on the field sports and fauna of Australia Felix. By an Old Bushman. *16mo. pp. 15+272. index.* *London.*

1865. Ten years in Sweden: being a description of the . . . fauna of Scandinavia. *8vo. pp. 16+592. T. of c.* *London.*

1871. A spring and summer in Lapland. 2nd ed. *8vo. pp. 8+407. 6 pl. (col.).* *London.*

The first edition, without colored plates, was published in 1864.

WHISHAW, Frederick J.

1893. Out of doors in Tsarland; a record of the seeings and doings of a wanderer in Russia. *8vo. pp. 6+380. 2 fig. T. of c.* *London.*

WHISTLER, Hugh.

1924. In the high Himalayas; . . . with some notes on the natural history. *8vo. pp. 4+223. 17 pl. (1 map). index.* *London.*

1928. Popular handbook of Indian birds. *8vo. pp. 24+438. 17 pl. (4 col.). 85 text-figs. index.* *London.*

An excellent treatise that fills the gap between brief accounts and the more elaborate *Fauna of British India.*

WHITAKER, Joseph I. S.

1879. Descriptive list of the birds of Nottinghamshire. *See* Sterland, W. J.

1902–20. *See* Victoria History of the Counties of England.

1905. The birds of Tunisia; being a history of the birds found in the regency of Tunis. *2 vols. 8vo.* Vol. I, *pp. 32+294. 15 pl. (13 col.). 1 map. bibliogr. index.* Vol. II, *pp. 18+410. 4 pl. (2 col.). 1 map. index.* *London.*

In 1924 Louis Lavauden with others published their *Contributions à l'ornithologie Tunisienne* which was intended as a supplement to this meritorious work.

1907. Notes on [259 species of] the birds of Nottinghamshire. *8vo. pp. 19+298. col. front. 11 text-figs.* *Nottingham.*

WHITE, ADAM [1817–79].

1850. A popular history of Mammalia, etc. *8vo. pp. 8+346+14. 16 col. pl.* *London.*

A valuable and trustworthy treatise for the beginner by a celebrated British naturalist.

1855. A popular history of birds, comprising a familiar account of their classification and habits. *8vo. pp. 8+347. 20 col. pl. index.* *London.*

A popular review of all the Aves, written in interesting fashion. The colored plates are rather poor. The *Ayer-Zimmer Cat.* gives the date of publication as 1885. This is probably one of the very few typographical errors in that admirable catalogue as the copy in hand is dated, both on the title-page and in the preface, 1855. The treatise must be rare; it is not listed in the *Cat. Br. Mus.* (*Nat. Hist.*).

WHITE, ERNEST WILLIAM.

1881–2. Cameos from the Silver-land; or, The experiences of a young naturalist in the Argentine Republic. *2 vols. 8vo.* Vol. I, *pp. 18+436. 1 map. index.* Vol. II, *pp. 16+527. index.* *London.*

References to animal life, especially to the birds, of the country are numerous.

WHITE, *Rev.* GILBERT [1720–93].

1789. The natural history and antiquities of Selborne, in the county of Southampton. *4to. pp. 5+468+(13). 9 pl. 5 append. index.* *London.*

The original edition of this immortal classic. The large folding engraving facing the title-page in this copy 'entitled, North-east view of Selborne', is reproduced in the only other 4to edition (1813) and on a smaller scale in Jardine's edition of 1853, also in Bowdler Sharpe's edition of 1900. No end of editions—over one hundred—have appeared of this famous book, most of whose titles will be found in *A Bibliography of Gilbert White of Selborne*, by Edward A. Martin, 1897, and in the *Bibliography* by Dr. C. Davies Sherborn in Sharpe's edition of Selborne, 1900. The chief editions are in the Blacker and E.S.W. libraries, most of them listed in this *Catalogue.*

1795. A naturalist's calendar, with observations in various branches of natural history. *8vo. pp. 5+170+(5). 1 pl. (col.). T. of c.* *London.*

The *editio princeps* of the *Naturalist's Calendar*, which is usually bound with the *Natural History.* It was published as a separate volume, edited by Dr. John Aikin, and included (1) The Naturalist's Calendar, (2) Observations on various parts of Nature, (3) Meteorological Observations, (4) A Poem, (5) Summary of the weather and Table of Contents. A colored picture of a 'Hybrid Bird' appears opposite p. 65. Inserted in the present copy is a letter to Bowdler Sharpe regarding a reference to the Hen Harrier.

1802. Works in natural history, comprising the natural history of Selborne; the naturalist's calendar; and miscellaneous observations extracted from his papers; to which are added A calendar and observations by William Markwick. *2 vols. 8vo. 4 pl.* *London.*

1813. The natural history and antiquities of Selborne in the county of Southampton; to which are added, The naturalist's calendar; observations on various parts of nature; and poems. New ed., with engravings. *4to. pp. 10+588. col. pl.* *London.*

1822. The natural history of Selborne, to which are added, The naturalist's calendar, miscellaneous observations, and poems. A new ed., with engravings. *2 vols. in 1. 8vo. pl.* *London.*

1825. The Natural History of Selborne; to which are added, the Naturalist's Calendar, miscellaneous observations, and Poems. *2 vols. 8vo.* Vol. I, *pp. 8+351. 2 pl.* Vol. II, *pp. 364. front. 1 pl. index.* *London.*

This edition, published by C. and J. Rivington, has the colored plate of a 'Hybrid Bird' as a frontispiece to vol. I.

1829. Nat. Hist. Selborne. Wm. Jardine. *London.*

1832. The natural history and antiquities of Selborne. *8vo. pp. 12+562. 15 figs. 2 indexes.* *London.*

This edition is known as Prof. Rennie's, and contains good illustrations of Selborne as well as of the Calendar of British Zoology.

1836. The natural history of Selborne, with its antiquities; naturalist's calendar, etc. *8vo. pp. 19+418. map. 100 figs. 2 indexes.* *London.*

This little-known edition of Gilbert White's classic is of importance on account of footnotes by the eminent ornithologist, Edward Blyth, and because several new species are mentioned by him.

1836. The natural history of Selborne, with additions, by William Jardine. *8vo. pp. 15+323. front. 18 pl. index.* *London.*

This very rare edition has only the *Natural History*, with extracts from *Miscellaneous Observations*, to which the editor, Sir William Jardine, has subjoined sundry additional memoranda. Not listed in the *Cat. Br. Museum* (*Nat. Hist.*) nor mentioned by most bibliographies.

[1837]. The natural history and antiquities of Selborne. A new ed., with notes by E. T. Bennett. *8vo. pp. 24+640. text-figs.* *London.*

1854. The Natural History of Selborne. With additions and supplementary notes by Sir William Jardine. *8vo. pp. xxiv+416. front. 40 text-figs. index.* *London.*

1861. The natural history of Selborne. *8vo. pp. 24+416. 41 pl. (col.). index.* *London.*

One of several re-issues, in this case the 1850, of Bohn's *Illustrated Library.* Ed. by E. Jesse as were 1876 and 1881 prints.

1866. The natural history of Selborne, with miscellaneous observations and explanatory notes. *16mo. pp. 6+430. index.* *Boston.*

An American reprint of the London, 1862, issue.

1875. Natural history and antiquities of Selborne, with notes by Frank Buckland; a chapter on antiquities, by Lord Selborne, and new letters. *8vo. pp. 30+591. 9 pl. 1 map. 120 figs. append. index.* *London and New York.*

1876. The natural history of Selborne. *8vo. pp. 24+416. 41 col. pl. index.* *London.*

Another issue of Bohn's *Illustrated Library*, with notes by Sir William Jardine.

1877. The natural history and antiquities of Selborne in the county of Southampton. Ed. by Thomas Bell. *2 vols. 8vo.* Vol. I, *pp. 58+507. 5 pl. 3 figs.* Vol. II, *pp. 6+410. 5 pl. 1 fig. index.* *London.*

Large paper edition of this date. Inserted at the end of vol. I are two extra illustrations. The small paper octavo (1877) is also in the Blacker Library.

1877. Natural history and antiquities of Selborne; with notes by Frank Buckland. *8vo. pp. 32+591. 10 pl. 1 map. 120 figs. append. index.* *London.*

A reissue of the 1875 edition. This copy contains the colored plate lacking in that printing.

1883. Natural history and antiquities of Selborne. *8vo. pp. 29+480. 126 figs. append. index.* *London.*

A cheaper edition of the 1875 issue.

1887. The natural history of Selborne. *8vo. pp. xii+366.* *London.*

A volume of *The Camelot Series*, edited by Ernest Rhys, with a preface by Richard Jefferies.

1890. The natural history of Selborne. *8vo. pp. 16+470. 88 figs. index.* *London.*

A volume of the *Chandos Classics*, edited by G. C. Davies.

[**WHITE,** *Rev.* G. (*contd.*)]

1890. The natural history of Selborne. *8vo. pp. 24+568. 59 figs. index.* *London.*

Edited by J. E. Harting, with ten hitherto unpublished letters and replies from Gilbert White to Robert Marsham. Illustrated by Thos. Bewick.

1890. The natural history of Selborne . . . with notes by Sir William Jardine. *8vo. pp. 26+475. illust.* *London.*

1895. Natural history of Selborne. *2 vols.* Vol. I, *pp. 23+208. 11 pl. 36 figs.* Vol. II, *pp. 6+231. 8 pl. 25 figs.* *New York.*

The John Burroughs edition, published in New York and London, with extra fine illustrations.

1897. Natural history and antiquities of Selborne; with notes by Frank Buckland, etc. *8vo. pp. 30+480. illust.* *London.*

1897. A bibliography of Gilbert White. *See* MARTIN, E. A.

1900. The natural history and antiquities of Selborne in the County of Southampton. *8vo. pp. 10+476.* *London.*

1900. The natural history & antiquities of Selborne & A garden kalendar, with an introduction to the Garden kalendar by the Very Reverend S. R. Hole, numerous illustrations by J. G. Keulemans *et al. 2 vols.* Vol. I, *pp. 23+427. 50 pl. 37 figs. 2 append.* Vol. II, *pp. 15+443. 49 pl. 32 figs. 5 append. bibliogr. index.* *London.*

This sumptuous edition, edited by R. Bowdler Sharpe, contains the restored passages to White's original letters in the British Museum relating to the birds of Gibraltar sent home by his brother John White. It also contains frequent excerpts from the notes in the well-known editions of Jardine, Bennett, and Bell, as well as the 'Garden Kalendar' now printed for the first time. The present copy is of the large-paper issue with plates limited to 160 copies, of which this is No. 128, signed by the editor and artists. The illustrations to this edition were also issued separately in a case.

1902. The Natural History of Selborne. Edited by Grant Allen; a reprint of the 1900 edition. [O.]

1905. The natural history of Selborne; rearranged and classified under subjects by Charles Mosley. *8vo. pp. 7+266. front. index.* *London.*

1908. The natural history of Selborne; edited with notes by Grant Allen. *8vo. pp. 40+552. 186 figs. append. index.* *London.*

There were at least four Grant Allen editions, 1900–8.

1911. The natural history & antiquities of Selborne in the county of Southampton, with illustrations in colour by George Edward Collins. *4to. pp. 10+476. 24 pl. (col.). 5 append. index.* *London.*

1911. A nature Calendar. Selborne Society.

This tractate was issued in folio, an edition of 250 copies signed by the editor, W. M. Webb, Secretary of the Selborne Society.

[**1924**]. The Natural History of Selborne, with notes by Richard Kearton, and 85 photographs including many taken specially at Selborne by Cherry Kearton and Richard Kearton. *4to. pp. 5+248. front. 78 pl. index.* *London.*

1931. Journals of Gilbert White. Edited by Walter Johnson. *8vo. pp. xiv+463. 5 pls. 14 figs. in text. 2 maps. 1 diag. index. bibliog.* *London.*

The editor has also written 'Gilbert White, Pioneer, Poet and Stylist'.
The *Spectator* says of the work in hand: 'A perfectly edited diary. Who wishes to know England and the English cannot omit this record.'

WHITE, JOHN, *Surgeon-General.*

1790. Journal of a voyage to New South Wales, with sixty-five plates of nondescript animals, birds, lizards, serpents, etc. *4to. pp. 10+299+(35). 66 pl. (1 vignette). append.* *London.*

The mammals of this famous voyage were described by John Hunter; other animals by G. Shaw.

WHITE, STEWART EDWARD.

1930. Quack! Quack! *folio. pp. 20. illust.* *Philadelphia.*

A popular but trustworthy paper in the *Saturday Evening Post*, May 10, 1930, giving an authentic account of the slaughter and attempted protection of American wild fowl.

WHITE, TAYLOR [1735–80].

Collection of about 800 portraits of animals, many birds, made by well-known 18th-century artists. *See* ORIGINAL DRAWINGS, COLLINS, CHARLES and others, p. 501.

WHITEAR, WILLIAM. **1824.** *See* SHEPPARD, REVETT.

WHITEHEAD, CHARLES E. [1829–1903].

1891. (The) camp-fires of the Everglades. *4to. pp. 12+298. 16 pl. 27 figs.* *Edinburgh.*

WHITEHEAD, JOHN [1860–99].

1893. Exploration of Mount Kina Balu, North Borneo. (Appendix.) *4to. pp. 12+317. 32 col. pl. text-figs.* *London.*

The collections made during this classic expedition have been largely discussed and depicted in periodical literature. In the present record O. Thomas described the mammals; R. B. Sharpe and the author gave a full account of the birds, while F. Moquard discussed the reptiles and batrachians and L. Vaillant the fishes.

WHITING, CHARLES GOODRICH [1842–].

1903. Walks in New England. *8vo. pp. 301. 24 pl. T. of c.* *London.*

WHITING, JAMES E.

1898. Where wild birds sing, notes of a naturalist. *8vo. pp. (8)+158. T. of c.* *London.*

WHITLOCK, F. B.

1893. The Birds of Derbyshire; annotated with numerous additions by A. S. Hutchinson. *8vo. pp. 6+239. 7 pl. index.* *London.*

1897. The migration of birds; a consideration of Herr Gätke's views. *8vo. pp. 6+140.* *London.*

A frank critique of some speculations indulged in by Gätke in his *Heligoland, an ornithological observatory*, 1895.

WHITMAN, FRANK NUNN [1888–].

1920. Familiar studies of wild birds. *8vo. pp. 85. 72 pl. T. of c.* *Boston.*

WHITTOCK, NATHANIEL.

1830. The art of drawing and colouring from nature, birds, beasts, fishes, etc. *4to. pp. 100. 48 pl. T. of c.* *London.*

WHYMPER, CHARLES [1853–].

1909. Egyptian birds for the most part seen in the Nile Valley. *4to. pp. 10+221. 51 col. pl. 11 figs. index.* *London.*

An excellent, semi-popular treatise.

WHYMPER, EDWARD [1840–1911].

1892. Travels amongst the Great Andes of the Equator. *8vo. pp. 24+456. 21 pl. text illust. 3 maps.* Supplementary Appendix, 1891. *8vo. pp. 22+147. 14 pl.* *London.*

This interesting, systematic travelogue opens with an Introduction by H. W. Bates. Of vertebrate zoology only the reptilia and batrachia are described—by G. A. Boulenger. It is not easy to explain why the Supplement was published (apparently) a year before the main body of the work. There was a second (American) issue of the former issued in New York, dated 1892.

WHYTE, FREDERIC. **1907.** *See* SCHILLINGS, C. G.

WICHMANN, ARTHUR [1851–].

1912. Nova Guinea. Uitkomsten der Nederlandsche Nieuw-Guinea Expeditie in 1903 onder leiding von Arthur Wichmann. Vol. 2, pt. 2. *folio. illust. maps.* Title in French and Dutch. *Leiden.*

WICHMANN, CARL ERNST ARTHUR [1851–?1925].

1906–*date.* Nova Guinea. Uitkomsten der Nederlandsche Nieuw-Guinea-Expeditie in 1903 etc. *4to. col. illust.* Vol. I and continuations. *Leiden.*

About two volumes a year have been issued (in Dutch and French) of this voluminous and valuable record, which is really an account of three distinct exploratory expeditions into the wilds of New Guinea. The ethnography and anthropology were written by G. A. J. van der Sande and published in 1907 as vol. III, *pp. 2+390, 79 col. pl., text-figs. and 1 map*; freshwater fishes (vol. V, 1908, and vol. IX, 1913), by M. Weber; mammals by F. A. Jentink (vol. V, 1908, and vol. IX, 1909); reptiles by N. de Rooy, vol. V, 1909, and T. W. van Lidth de Jeude, vol. IX, 1911; amphibians by P. N. van Kampen, vol. IX, 1909; and birds by E. D. van Oort, vol. IX, 1909.

WICKMANN, HEINRICH.

1893. Die Enstehung der Färbung der Vogeleier. *8vo. pp. 2+64. T. of c.* *Münster i. W.*

An instructive monograph on the coloration of birds' eggs.

WICKS, JOHN B.

1897. My bird parishioners. St. Paul's parish, Paris Hill, N.Y. *16mo. pp. 122. front. index.* *Utica, N.Y.*

WIDEGREN, HJALMAR.

1862. Sveriges Salmonider. *10 pl.* *Stockholm.*

A contribution to the study of Swedish salmon.

1863. Bidrag till kännedomen om Sveriges Salmonider. *8vo. pp. 2+78. illust.* *Stockholm.*

1864. Nya bidrag till kännedomen om Sveriges Salmonider. *7 pl.* *Stockholm.*

******** and **HOLMGREN,** A. E.

[1867–71]. Handbok i zoologi. *2 vols. 8vo. Del. 3. pl. illust. text.* *Stockholm.*

Devoted to Scandinavian fauna. *See also* HOLMGREN, A. E.

WIDMANN, OTTO and **COOKE,** W. W.

[1884?]. Bird migration on the Mississippi valley, &c. *See* COOKE, W. W.

1907. A preliminary catalog of the birds of Missouri. *8vo. pp. 288. bibliogr. index.* [*St. Louis.*]

The total number of species and subspecies is 383 of which 162 are breeders. The data regarding the former abundance and the extirpation of the Wild Pigeon and the Carolina Paraquet are fully given.

WIEDEMANN, C. R. W. **1800.** *See* CUVIER, *Baron.*

WIEDERSHEIM, ROBERT ERNST EDUARD [1848–?1920].

1897. Elements of the comparative anatomy of vertebrates; adapted from the German by W. N. Parker. *8vo. pp. 16+488. text-figs.* *London and New York.*

One of the best works on the subject, by two eminent comparative anatomists. The original was published in 1883, the first American edition in 1886.

WIED-NEUWIED, *Prince* MAXIMILIAN A. P. ZU [1782–1867].

1820–1. Reise nach Brasilien . . . . in 1815–17. *2 vols. folio and 4to. illust. atlas. 22 col. pl. 3 maps.* *Frankfurt a. M.*

In 1850 an appendix of pp. 4+144 was added to this report—an important document in the natural history of Brazil.

1822–31. Abbildungen zur Naturgeschichte Brasiliens. *90 col. pl. and text. folio.* *Weimar.*

This excellent and finely colored Atlas of South American fauna was published both in German and French. The 15 parts (each with six plates) were issued at irregular periods.

1839–41. Reise in das innere Nord-America in . . . 1832–4. *2 vols. 4to and folio. with figs. in text and an atlas of 84 col. pl. 1 map* (Wanting.) *Coblenz.*

This travelogue, well known to systematic zoologists, was published in 20 parts. Vol. I has an appendix in which there is a list of winter birds appearing on the Wabash. In 1862 the author issued a catalogue (pp. 240, 4 pl.) of the mammals observed during this journey, and in 1865 a corresponding list of the reptiles, with pp. 141 and 7 col. pl.

WIEMAN, HARRY LEWIS [1883–].

1925. General zoölogy. *8vo. pp. 9+312. 208 figs. glossary. index.* *New York.*

An introductory course in Zoology, first edition.

WIEN. *See* VIENNA.

WIENER, AUGUST F.

1877–80. (The) illustrated book of canaries and cage-birds. *See* BLAKSTON, W. A.

n.d. Foreign cage-birds. (The foreign bird section of *Canaries and cage-birds.*) *4to. pp. vii+345–444. 18 col. pl. index.* *London.*

This excerpt has been provided with a distinctive title-page, index and table of contents, and forms a useful manual written in popular language by a competent author. The hand-colored plates are quite good.

WIENER MUSEUM DER NATURGESCHICHTE. *See* VIENNA. NATURHISTORISCHES STAATSMUSEUM.

WIEPKEN, C. F.

1878. Die Wirbelthiere des Herzogthums Oldenburg. *12mo. pp. 5+281. index.* *Oldenburg.*

A systematic, descriptive catalogue of the birds (pp. 34–228) of Oldenburg, a similar account being also given of the reptiles, amphibia, and fishes by Ed. Greve. This important little book is from the Cabanis-Reichenow collection. It is probably a rare item, not being listed in the *Cat. Br. Mus.* (*Nat. Hist.*).

WIERZEJSKI, ANTONI.

1881. O faunie Jezior Tatrzańskich. *4to. pp. 12. illust.* *Krakow.*

Author's excerpt from a Polish periodical.

1888. O niektorych pasorzytach raka rzecznégo. *8vo. pp. 2+20. illust.* *Krakow.*

WIGAND, ALBERT.
1874–7. Der Darwinismus und die Naturforschung Newtons und Cuviers. Beiträge zur Methodik der Naturforschung und der Speciesfrage. *3 vols. 8vo. pp. 462+515+320. Braunschweig.*

These philosophic volumes consider scientific research in its relation to Newton, Cuvier, and Darwin, their discoveries and the theories of specific origin they or their followers advocated. It all culminated in the great *Origin of Species* and the School of Evolution based upon its teachings. Wigand details at length the modifications in the Darwinian theory that were accepted at the end of the nineteenth century and the difficulties that stand in the way of their entire acceptance at a later date.

WIGLESWORTH, LIONEL W.
1892. Aves Polynesiae. *4to. pp. 10+92. Dresden.*

This systematic treatise does not include the birds of Hawaii. It originally appeared in periodical form, the present title being an author's separate.

1898. (The) birds of Celebes and the neighbouring islands. *See* MEYER, ADOLF BERNARD.

WILBRAND, JOHANN BERNHARD [1779–1846].
1815. Über die Classification der Thiere. *pp. 156. illust. Giessen.*

A prize essay of the Haarlem Akademiie that discusses and criticizes the *Systema Naturae* of Linnaeus.

WILBUR, HARRIETTE.
1920. Bird gossip. *8vo. pp. 279. 26 pl. (col.). T. of c. Philadelphia.*

WILD, JOHN JAMES.
1878. At anchor; a narrative of experiences afloat and ashore during the voyage of H.M.S. 'Challenger' from 1872–1876. *folio. pp. 198. 13 col. pl. map. London.*

WILD BIRD INVESTIGATION SOCIETY, Journal.
1919–22. Irregular. Edited by W. E. Collinge, University of St. Andrews, Scotland. Vols. I–III. (All pub.)

Three numbers were issued when the *Journal* suspended publication in 1922. It was devoted chiefly to the preservation and protection of native British birds. Short papers were contributed by the Editor, George Abbey, L. T. Thornton, Miss Rintoul, and others.

WILD BIRDS AT HOME.
n.d. *2 vols. 12mo.* First and Second Series. Anonymous.

WILDER, HARRIS HAWTHORNE.
1902. A synopsis of animal classification. *8vo. pp. 3+57. New York.*

WILD LIFE. (Missouri Fish and Game League.) 1917–20? *St. Louis.*

WILD LIFE.
1913–18. An Illustrated Monthly, edited by Douglas English. Vols. I–X. *4to. illust. [? London.]*

WILD LIFE.
1908–9. Devoted to Field Sports, Natural History, and Game and Forest Preservation. *Endeavour, Wis.*

THE WILEY AGRICULTURAL SERIES.
1925. *See* JONES, D. F.

WILHELM, GOTTLIEB TOBIAS [–1811].
1810. Unterhaltungen aus der Naturgeschichte . . . Vögel. *2 pts. 8vo. col. pl. Wien.*

WILKES, CHARLES [1798–1877].
1845. Narrative of the United States exploring expedition, 1838–42. *See* UNITED STATES EXPLORING EXPEDITION.

WILKINSON, E. S.
1929. Shanghai Birds. A Study of Bird Life in Shanghai and the Surrounding Districts. *4to. pp. 22+243. 23 col. pl. index. Shanghai.*

A very useful and well prepared systematic account of local Chinese birds.

WILLCOX, MARY ALICE [1856–].
1895. Pocket guide to the common land birds of New England. *8vo. pp. 12+158. index. Boston.*

WILLETT, GEORGE.
1912. Birds of the Pacific slope of southern California. (Pacific Coast Avifauna, No. 7.) *8vo. pp. 122. index. Hollywood, Cal.*

A well-annotated catalogue of 390 species, including 13 on the hypothetical list.

WILLEY, ARTHUR [1867–].
1894. Amphioxus and the ancestry of the Vertebrates . . . with a preface by H. F. Osborn. *8vo. pp. 14+316. 1 pl. text-figs. New York.*

This important scientific contribution to the problems of evolution was also published as *Columbia University Biological Series*, No. 2.

1898–1902. Zoological Results based on material from New Britain, New Guinea, Loyalty Islands . . . during 1895–7. *6 pts. in 2 vols. 4to. pp. 23+830. 90 col. pl. 1 map. figs. in text. Cambridge (Eng.).*

Although the above is a well-known and most valuable contribution to the faunal life of Oceania there are few sections on the vertebrates. However, G. A. Boulenger has written on two species of Snakes and W. P. Pycraft on the Megapodes.

1930. Lectures on Darwinism. *8vo. pp. 198. 7 figs. and front. index. Boston.*

A masterly exposition by the Professor of Zoology in McGill University of the principles of evolution in the form of what the author speaks of as 'conversations rather than lectures'.
In whatever light the reader may regard these essays they may well be read—especially the interesting 'Gallery of Facts' (chap. XI) and the accompanying notes and references (pp. 163–89)—by every student of vertebrate zoology. It will be remembered that Professor Willey contributed to the literature of the subject an earlier (1911) brochure on *Convergence in Evolution* (with 12 illustrations) in which he also expressed original ideas on the subject.

WILLIAM OF SWEDEN, *Prince.*
1923. Wild African Animals I have Known. *4to. pp. 14+315. 211 photos. ? London.*

A well-illustrated description of many interesting African birds, mammals, and reptiles.

WILLIAMS, GRAEME.
?1920. Wonders by Land and Sea. *4 vols. 8vo. London.*

WILLIAMS, HENRY SHALER [1847–].
1895. Geological biology. *8vo. pp. 20+395. New York.*

WILLIAMS, M. B. **1928.** *See* CANADA. NATIONAL PARKS BRANCH.

WILLIAMSON, HENRY.
1930. Tarka the Otter, etc. *8vo. pp. 286. Leipzig.*

A sad but well-written story, giving the life-history and violent end of a European otter at the hands of his ancient enemies—dogs and men. An introduction is furnished by Sir John Fortescue. The Compiler has elsewhere taken the disgusting English otter-hunt as his text for denouncing all useless murders of animals by anybody wherever he (or she) may live or whatever station in life he (or she) may occupy.

WILLIAMSON, R. S. **1855–9.** *See* UNITED STATES, Pacific Rd. Survey, p. 606.

WILLIBALD, E.

1854. Die Nester und Eier der in Deutschland und den angrenzenden Ländern brütenden Vögel. *12mo. pp. 2+142. 8 col. pl. 228 figs. T. of c.* *Luckau.*

First edition of a semi-popular but systematic, descriptive catalogue of the nests and eggs of middle and northern European birds. Several editions of this treatise have appeared; an identical reprint in 1874 and an enlarged edition in 1886.

1886. Die Nester und Eier der in Deutschland, etc. *12mo. pp. 4+180. 8 col. pl. 229 figs. Leipzig.*

An enlarged and amended third edition of this a popular work.

WILLIS, THOMAS [1621–75].

1672. De Anima Brutorum, etc. *8vo.* [O. 4250.] *London.*

1684. Practice of Physick, etc. Two discourses concerning the Soul of Brutes. *folio.* [O. 4248.] *London.*

WILLISTON, SAMUEL WENDALL [1852–?1927].

1911. American Permian Vertebrates. *8vo. pp. 145. 39 pl. illust. in text.* *Chicago.*

A systematic treatise on American vertebrate paleontology, published by the *Chicago University Press.*

1914. Water Reptiles of the Past and Present. *Chicago.*

A popular work presented in an interesting fashion.

1925. Osteology of reptiles. (Wanting.)

WILLUGHBY, FRANCIS [1635–72].

1676. Francisci Willughbeii ornithologiae libri tres; totum opus recognovit, digessit, supplevit Joannes Raius. *folio. pp. 10+307+15. 77 pl. index.* *Londini.*

One of the most important treatises on ornithology of all time, being the first systematic classification of the birds of the world. The work was not completed by Willughby; that task, with the aid of funds provided by Willughby's widow. The treatise is divided into three sections, birds in general, land birds, and water birds, to which is added an appendix on birds of doubtful origin. A *Catalogus Avium Britannicarum* occupies pp. 17–23, and a folding inset (p. 25 *bis*) gives an *Avium terrestrium tabula.* The volume in hand is a 'Large Paper Copy' described by Mullens and Swann 'as printed on thick and fine paper; size of a cut copy 15⅝ × 9¾. Title reset and printed in red and black, with addition, after "Johannes Raius", of the words "Sumptus in Calgographos fecit Illustriss D. Emma Willughby, *Vidua*"'. The copy in hand, 'Widow's edition', bearing the Willughby arms, was bound by Roger Payne and was known as the Woodhull Copy. It is now in the E.S.W. Library. *See also* RAY, JOHN.

1678. The ornithology of Francis Willughby . . . In three books. Wherein all the birds hitherto known . . . are accurately described. Tr. into English, with many additions. To which are added, three considerable discourses, I. Of the art of fowling: with a description of several nets in two large copper plates. II. Of the ordering of singing birds. III. Of falconry. By John Ray. *folio. red and black t.-p. pp. 12+441+6. 80 pl. 99 col. figs. of birds. 97 col. backgrounds.* *London.*

A translation of Willughby's *Ornithologia,* edited by John Ray, with three added plates. There is also an appendix which should really be credited to Nieremberg and not to Hernandez. There are two copies of this fundamental and classical treatise in the McGill libraries, an ordinary copy (except that 99 figures of birds and 97 backgrounds are colored) and one from the famous library of the celebrated diarist, Samuel Pepys. This second, unique copy has the illustrations hand-colored and the pages red-lined. It is bound in contemporary leather, bears the Pepys gilt coat-of-arms on the cover and the diarist's bookplates on the first and last page. In all probability this specially prepared copy was presented to Pepys when he was President of the Royal Society by his friend and fellow member, John Ray, both being sympathetic naturalists. In any event, it is the only known colored copy of the English edition, London, 1678. The book was purchased by the previous owner from a family named Hallowes. We know that Brabazon Hallowes married Anne Jackson, the daughter of Pepys' heir. Samuel Pepys left by will his wonderful Diary and all his books to Magdalen College, Cambridge, but this volume seems to have escaped the notice of the executors, or they may have given it as a duplicate to a relative. The diarist makes a number of allusions to his collection of books, of which he was very proud. In this connection it is to be remembered that the corresponding work on Fishes, 1686, was dedicated by the editor, John Ray, to his friend Samuel Pepys. The copy in Cambridge *Bibliotheca Pepysiana* has the plates uncolored, and the pages are not decorated.

1685. Icthyographia ad Amplissimum virum Dnum. Samuelem Pepys, Praesidem Soc. Reg. Londinensis concilium. et Socios ejusdem. *folio. pp. 5+343+30+13. 188 pl.* *Londini.*

The copy in hand is a fine example of the first large English work on ichthyology. Engraved frontispiece and 184 full-page copper engravings, showing every kind of fish. These plates were engraved by Paul van Somers at the expense of various members of the Royal Society, including Samuel Pepys, Sir Christopher Wren, and Fernandez Mendez. This is the first issue of these plates. They were published a year later with a Latin text.

WILLUGHBY SOCIETY PUBLICATIONS.

1880–4. Reprints of rare ornithological works. *Complete set of 12 pts. 4to and 8vo.* *London.*

The volumes reprinted by this most useful Society are many of them on subjects of great interest to the zoologist. It is proposed here to list those that are in the McGill libraries, especially the Blacker and E.S.W. collections. All of the originals are of extreme rarity, a few of them, however, being on the shelves of McGill. Individual titles, in particular those of original copies, will also be found under authors' names in this Catalogue. The Compiler is indebted to the *Cat. Zool. Library, Br. Museum,* for the extended titles.

1880. Tunstall's Ornithologia Britannica. Edited by A. Newton. *8vo. pp. 4+2+4. illust. text.*

1880. Desfontaine's Mémoire sur quelques nouvelles espèces d'Oiseaux des Côtes de Barbarie. Edited by A. Newton. *8vo. pp. 4+496–505. 7 pl.*

1880. Sir A. Smith's Miscellaneous Ornithological Papers. Edited by O. Salvin. *4to. pp. 6+127.*

1882. Forster's Catalogue of the Animals of North America, or Faunula Americana (1771).

1882. [**1793**]. Lichtenstein's Catalogus Rerum naturalium Rarissimarum. Edited by W. B. Tegetmeier and by F. Du Cane Godman. *8vo. pp. 4+11+60.*

Dr. Charles W. Richmond has drawn the Compiler's attention to the fact that there were two independent editors of this rare tract. Both reprints are dated 1882, one edited by W. B. Tegetmeier, F.Z.S. (printed by Horace Cox, 10 Wellington St., Strand, W.C.), and the other by F. Du Cane Godman, F.R.S. (printed by Taylor and Francis, Red Lion Court, Fleet St.). Tegetmeier signed his preface but Godman did not. The prefaces are quite different; Dr. Richmond does not know why two editions were published, both under the auspices of the Willughby Society. Mr. England, Librarian of the Zoological Section, British Museum, has drawn attention to the following extract from *A Veteran Naturalist, Life and Work; W. B. Tegetmeier,* by E. W. Richardson, p. 200, 1916, London: 'When the Willughby Society was formed by members of the British Ornithologists' Union, with the object of reprinting rare and important ornithological works, he [Tegetmeier] undertook the duties of general editor, and himself contributed two volumes to the series, viz. Boddaert's *Table des Planches Enluminées d'Histoire Naturelle* (1783), and, in 1882, Lichtenstein's *Catalogus Rerum Naturalium Rarissimarum* of 1793.'
The Tegetmeier edition (very rare) was probably withdrawn because, as Mr. Harting found, of a number of errors in the transcript.

1882. Forster's Animals of Hudson's Bay. Edited by P. L. Sclater. *8vo. pp. 4+53.*

1882. Scopoli's Ornithological Papers from his Deliciae Florae et Faunae Insubricae (Ticini: 1786–1788). Edited by A. Newton. *4to. pp. 4+20.*

1882. Leach's Systematic Catalogue of the specimens of the indigenous Mammalia and Birds in the British Museum. Edited by O. Salvin. *4to. pp. 4+42+1.*

[**WILLUGHBY SOCIETY PUBLICATIONS** (*contd.*)]

1883. Vieillot's Analyse d'une nouvelle Ornithologie élémentaire (1816). Edited by H. Saunders. *8vo. pp. 4+70.*

1883. Adouin's Explication sommaire des Planches d'Oiseaux de l'Égypte et de la Syrie publiées par J. C. Savigny.

1883. Barton's Fragments of the Natural History of Pennsylvania. Edited by O. Salvin. *4to. pp. 18+24.*

1884. Wagler's Six Ornithological Memoirs from the 'Isis'. Edited by P. L. Sclater. *8vo. pp. 4+137.*

WILMORE, A. and **others.**

1925. The natural history of Hertfordshire. *8vo. pp. 8+152. 16 pl. 12 figs. append. glossary. index.* *London.*

WILSER, LUDWIG [1850–1924].

1910. Leben und Heimat des Urmenschen. *8vo. pp. 93. illust.* *Leipzig.*

WILSON, ALEXANDER [1766–1813] and **ORD,** GEORGE.

1808–14. American ornithology; or, The natural history of the birds of the United States. *9 vols. folio.* Vol. I, *pp. 6+158. 9 col. pl. index.* Vol. II, *pp. 12+167. 9 col. pl. index.* Vol. III, *pp. 16+120. 9 col. pl. index.* Vol. IV, *pp. 12+100. 9 col. pl. index.* Vol. V, *pp. 12+122. 9 col. pl. index.* Vol. VI, *pp. 20+102. 9 col. pl. 2 indexes.* Vol. VII, *pp. 12+132. 9 col. pl. index.* Vol. VIII, *pp. 11+146. 9 col. pl. 2 figs. index.* Vol. IX, *pp. 57+133+(22). 4 col. pl. 2 figs. 3 indexes.*

Philadelphia.

Wilson's life-work, the importance of which can be judged from what Coues wrote: 'Science would lose little, but, on the contrary, would gain much, if every scrap of pre-Wilsonian writing about United States birds could be annihilated.' Vols. I–VII appeared during the life of the author; vol. VIII, edited by Ord, was published the year after his death, and vol. IX, with four plates left by Wilson but with text written by Ord from personal observations and notes left by Wilson, completed the work the same year. Several editions appeared later under various editors. There probably has never been an American treatise on zoology so thoroughly exploited and out of which so many composite works have been fashioned—so many veritable cold literary dishes—as Wilson's *Ornithology*. Most of these are in the E.S.W. Library and will receive attention here.

******** and **ORD,** GEORGE.

1828–9. American ornithology; or, the natural history of the birds of the United States. *3 vols. text. 1 vol. atlas. 8vo.* Vol. I, *pp. 199+230. 2 figs.* Vol. II, *pp. 6+456.* Vol. III, *pp. 6+396. 2 figs. index.* Vol. IV (atlas), *76 col. pl.*

New York and Philadelphia.

The first (1808–14) edition arranged in the systematic sequence of the species, not in the irregular order of the original work. The editor states that he 'has adhered to the original text, correcting only some erroneous references, and a few verbal inaccuracies, most of which were probably typographical errors'. However, much new matter is added in the form of footnotes, some signed G. Ord; others are unsigned. The sketch of Wilson's life in the present edition has been extended. The hand-colored drawings in the atlas are from the original copper plates, colored anew by pigments which seem to have been of better quality than those used by Wilson. In the copy under notice, the colors are very fresh; those of the original are faded and in some cases quite disintegrated. There appears to be also some differences between the coloration of the originals and that of the copy.

1829. American Ornithology; or, The Natural History of the Birds of the United States. The Volume of Plates containing 76 full-page engravings coloured from original drawings taken from nature. *1 vol. 4to.* *New York.*

This is the Atlas of the 1828–9 edition sold separately, as it sometimes was. It is a fine copy with the plates in good condition.

********, **JAMESON,** ROBERT, and **others.**

1831. American ornithology; or The natural history of the birds of the United States. *4 vols. 8vo.* Vol. I, *pp. (2)+96+271. front. (portr.). 1 pl.* Vol. II, *pp. 9+334. front.* Vol. III, *pp. 8+320. front.* Vol. IV, *pp. 10+362. front. T. of c.*

Edinburgh.

Vols. I–III are a reprint of Wilson's 1808–14 edition rearranged with occasional editorial notes by Jameson. Reference is given under each species to the number of Wilson's original plates, but the synonomy is transferred to a separate place at the end of vol. III where it is arranged in the order adopted for the text. A sketch of the life of Wilson is given in vol. I by W. M. Hetherington. Vol. IV (pp. 1–217) contains a reprint of the first three volumes of Bonaparte's *American Ornithology*, 1825–33, with the synonymy transferred to pp. 219–38. On pp. 241–4 there is a catalogue of the species described and figured by Audubon in his *Ornithological Biography*, 1831–9, and *Birds of America*, 1827–38. The remainder of the volume consists of extracts made from the proof-sheets of Richardson and Swainson's *Northern Zoology*, 1832, including the diagnoses of numerous new species, and with annotations after other authors. The work forms vols. LXVIII–LXXI of *Constable's Miscellany.* Coues notes his copy as without any other illustration than the portrait of Wilson in vol. I, but the present set, like that in the Ayer Library, has an engraved plate in each volume in addition to the portrait in the first volume. The publishers' advertisement in vol. I announces the publication of part 1 of Captain Thomas Brown's *Illustrations of American Ornithology* as a companion to the four volumes of letterpress here collated.

********, **JAMESON,** ROBERT, and **others.**

1831. American ornithology; or, The natural history of the birds of the United States. *4 vols. 8vo.* *Edinburgh.*

An impression of the earlier 1831 edition. The present copy differs but little from it; for example, each volume lacks the printing 'Constable's Miscellany', the place of publication is lacking at the head and foot of each plate, and so on. Otherwise the two printings are identical.

********, **BONAPARTE,** CHARLES LUCIEN, and **JARDINE,** WILLIAM.

1832. American ornithology; or, The natural history of the birds of the United States. *3 vols. 8vo.* Vol. I, *pp. 107+408. 28 pl. (col. by Wilson).* Vol. II, *pp. 7+390. 33 pl. (col.).* Vol. III, *pp. 8+523. 16 pl. (col.).+27 pl. (col. by Titian R. Peale and A. Rider). 2 figs. index.*

London and Edinburgh.

Vols. I and II and Vol. III to p. 257 are reprints of Wilson's original *American Ornithology*, 1808–14, including vol. IX by Ord, with notes by Jardine; vol. III, pp. 259–507, is a reprint of the first three volumes (all then published) of Bonaparte's *American Ornithology*, 1825–33, with the subtitle *Continuation of Wilson's American Ornithology.* The original plates of both authors were re-engraved by Lizars on a smaller scale and hand-colored except for the backgrounds which were left plain. Vol. I, pp. ix–cvii, has a life of Wilson by Jardine.

1840. Wilson's American Ornithology, with Additions Including the Birds Described by Audubon, Bonaparte, Nuttall, and Richardson. *1 vol. 12mo. pp. 8+746. 25 pl. 2 figs.* *Boston.*

This is the first Brewer's edition, to which he appends a *Synopsis*, and a systematic, descriptive list of 491 species not in the previous Wilson treatise. Several reprints of this fundamental volume have been made.

1843. Memoir of Alex. Wilson. *See* JARDINE, WILLIAM. Birds of Great Britain and Ireland, Pt. 4. *8vo.* 1843; also in the second issue, 1845–6.

1853. Wilson's American Ornithology, with notes by Jardine: to which is added a Synopsis of American Birds . . . by T. M. Brewer. *1 vol. 12mo.*

col. title. pp. 8+746. 25 pl. (1 col.). 2 figs. in text. (Wanting.) *New York.*

The text of this second Brewer edition is an exact reprint of the 1840 edition. There is some difficulty about establishing the date of the issue; there may have been several differently dated title-pages published. The Br. Mus. (Nat. Hist.) Library has one dated 1854, while Coues gives the date of the reissue as 1852.

1854. Wilson's American Ornithology, with notes by Jardine: to which is added a Synopsis of American Birds, etc. By T. M. Brewer. N.Y. T. M. Magnagnos & Co., 16 Beekman St. *8vo. pp. 8+746. extra col. and gilt t.-p. and front.* Copyright dated 1839. *322 plain figs. in text.*

This rare variant (not in the *Cat. Br. Mus.* (*Nat. Hist.*) or Library) has two title-pages, the major one (colored and gilt) reading Wilson's | American | Ornithology | with | Additions including the Birds | described by | Audubon, Bonaparte, Nuttall, | & Richardson. | New York. | T. L. Magnagnos & Co. | 16. Beekman St., *n.d.* MS. notes on back. The text is otherwise identical with the usual edition. The Compiler is indebted to Dr. Chas. W. Richmond for this rarissima and for notes on the work itself.

****, **BONAPARTE,** CHARLES LUCIEN, and **others.**

1876. American ornithology; or, The natural history of the birds of the United States; the illustrative notes and life of Wilson by Sir William Jardine. *3 vols. 4to.* Vol. I, *pp. 105+408. front.* (*portr.*). *27 pl.* (*col. by Wilson*). Vol. II, *pp. 7+495. 41 pl.* (*col. by Wilson*). Vol. III, *pp. 7+540. 8 pl.* (*col. by Wilson*)*+27* (*col. by Titian R. Peale and A. Rider*). *2 figs. index. London.*

The present edition—to p. 400 of vol. III—copies the text of the 1832 Jardine edition of Wilson and Bonaparte, whilst the remainder is a copy of the fourth volume of Bonaparte's *American Ornithology*, 1825–33, without the editorial annotations, which had not been published at the date of the earlier work. The plates are mainly those of the 1832 edition. Their coloring is exaggerated and not a close copy of the originals.

****, **BONAPARTE,** CHARLES LUCIEN, and **others.**

1877. American ornithology; or, The natural history of the birds of the United States [with] illustrative notes and life of Wilson by Sir William Jardine. *3 vols. 8vo. New York.*

The text of the present (New York) edition is printed from the same plates as the 4to edition of 1876. The colored plates are poor chromolithographic reproductions of the engravings by Lizars and others in the same issue.

****, **BONAPARTE,** C. L., and **BAIRD,** S. F.

1878. American ornithology. Popular ed. *3 vols. in 1. 8vo.* Vol. I, *pp. 132+16+214. 28 pl.* Vol. II, *pp. 8+390.* Vol. III, *pp. (2)+9+426. 2 figs. index. Philadelphia.*

A composite reprint, consisting of Ord's (1828–9) edition of Wilson's text, including Ord's biography of the author, and (vol. III, pp. 135–408) Bonaparte's *American Ornithology*, 1825–33, vols. I–IV, with the prefaces to the first three volumes. A combined index is given at the end of the work. The plates consist of zinc etchings after the original drawings of Wilson's and Bonaparte's works, reduced and modified by the omission of backgrounds, etc., and usually combined, four to the page. The original numbers are retained for the component drawings, those of Bonaparte being distinguished by the insertion of the letter B. Vol. I, pp. i–xvi, contains a *Catalogue of North American Birds* by Baird, reprinted from the 1859, 8vo ed. of the original matter first published in vol. IX of the *Pacific Railroad Surveys*. This edition is in its turn a reprint of a five-vol. issue by the same publishers in 1871, 3 vols. text and 2 vols. colored plates. The pagination appears to be the same, although the colored plates have been replaced by cheaper illustrations. The present issue is reviewed in the *Bulletin of the Nuttall Ornithological Club*, 1879.

WILSON, ANDREW [1852–1912].

1879. Leisure-time studies, chiefly biological. A series of essays and lectures. 1st ed. *8vo. pp. 15+381. 68 figs. New York.*

1882. Nature Studies. *See* PROCTOR, R. A.

1882. Wild animals and birds: their haunts and habits. *8vo. pp. 9+192. 46 pl. 35 figs. T. of c. London.*

1883. Chapters on evolution. 2nd ed. *8vo. pp. 15+383. illust. London.*

WILSON, EDWARD ADRIAN.

1899–1901. *See* ORIGINAL DRAWINGS. Southern Cross Antarctic Expedition.

1902. *See* BR. MUS. (NAT. HIST.).

1907–*date*. *See* BR. MUS. (NAT. HIST.) VOYAGE 'DISCOVERY'.

WILSON, JAMES [1795–1856].

1839. An introduction to the natural history of birds, being the article 'Ornithology' from the seventh edition of the Encyclopaedia Britannica. *4to. pp. 105. 135 text-figs. 16 pl. index. Edinburgh.*

Although this is a reprint yet it is provided with a new title-page and makes a useful separate, giving a very practical, illustrated review of ornithology to date.

WILSON, SCOTT BARCHARD and **EVANS,** A. H.

1890–9. Aves hawaiienses: the birds of the Sandwich Islands. *folio. pp. 25+257. 72 pl.* (*64 col.*). *index. London.*

This well-known monograph appeared in eight parts, and forms a model account of local avifauna. A complete history of Hawaiian birds is given, with native names, notes on distribution, synonymy, habits, etc. Prof. Hans Gadow contributed an illustrated paper on the *Drepanididae*. The copy in hand has the original, dated wrappers bound in. Part VIII contains table of contents, list of plates, and index.

WILSON BULLETIN. (Wilson Ornithological Club; Nebraska Ornithologists' Union.)

1859–1930. *Oberlin, O., Sioux City, Ia.*

1889–91. As Ornithologists' and Oologists' Semi-Annual.

1892. As Wilson Quarterly.

1893. As Journal of the Wilson Ornithological Chapter of the Agassiz Association.

The Wilson Club was founded in 1858, and in 1859 the Bulletin appeared.

Under various names this magazine is one of the most important as it is one of the oldest American periodicals devoted to Ornithology. It has had a vigorous scientific existence of over 70 years, and the list of its contributors includes most of the competent writers on avian subjects in America.

WILSON ORNITHOLOGICAL CHAPTER. *See* ORNITHOLOGISTS' AND OOLOGISTS' SEMI-ANNUAL.

WILSON ORNITHOLOGICAL CLUB. *See* WILSON BULLETIN.

WILSON QUARTERLY, a journal of ornithology; official organ of the Wilson ornithological chapter of the Agassiz association. *8vo. Oberlin.*

A continuation of the *Ornithologists' and Oologists' Semi-annual*, continued as the *Wilson Bulletin* (q.v.).

WILTSHIRE ARCHAEOLOGICAL AND NATURAL HISTORY MAGAZINE.

1854–1907. Vols. 1–35. (? All pub.) *Devizes.*

WIMEREUX, STATION ZOOLOGIQUE.

1877–*date*. Travaux. *Pas-de-Calais.*

WINCHELL, ALEXANDER [1824–91].
1870. Sketches of Creation. *12mo. pp. 439. illust.* *New York.*

One of the best-written popular works on faunal evolution yet published. It passed through several editions, including a 1928 reprint.

WINCHESTER COLLEGE NATURAL HISTORY SOCIETY.
1871–1913. Report.

WINGE, ADOLF HERLUF [1857–].
1894. Fuglene ved de danske Fyr. *8vo.* *?Kjøbenhavn.*

Two volumes of a very useful periodical, elsewhere annotated.

1898. Grønlands Fugle. (Conspectus Faunae Groenlandicae. Aves.) *8vo. pp. 316. map.* *Kjøbenhavn.*

A well-known systematic work on the birds of Greenland by a trained ornithologist. A separately published, repaged paper from vol. XXI of *Meddelelser om Grønland.*

1902. Grønlands Pattedyr. (Conspectus Faunae Groenlandicae. Mammalia.) *8vo. pp. 205. map.* *Kjøbenhavn.*

1906. Jorgfundne og nulevende Hovdyr . . . Brasilien. *4to. pp. 237. 9 pl.* *Kjøbenhavn.*

On the Ungulata of Brazil. One of several separately bound papers from the publications of the Danish *Zoologiske Museum*, on various Brazilian natural history subjects.

1923–4. Pattedyr-Slaegter. *3 vols.* *Kjøbenhavn.*

1925–6. Danmarks Fugle. *See* SCHIØLER, E. LEHN.

WINKLER, VALENTINE.
[**1920**]. The value of birds to agriculture. *See* CANADA. DOMINION PARKS BRANCH.

WINSLOW, HELEN M.
1900. Concerning Cats. *8vo. pp. 284. illust.* *Boston.*

WINTERTHUR. Naturwissenschaftliche Gesellschaft.
1899–1927. Mitteilungen. *8vo.*

WINTLE, ERNEST D. [1852–1917].
1896. The birds of Montreal. Birds observed in the vicinity of Montreal, Province of Quebec, Dominion of Canada, with annotations as to whether they are 'permanent residents' or those that are found regularly throughout the year . . . data of nests and eggs when found, and especially noting the species that breed in the city and Mount Royal Park; also data of migratory arrivals and departures, and other notes, from original observations made during fifteen years. *8vo. pp. 14+281. 5 pl. index.* *Montreal.*

An annotated list of 254 species, with brief descriptions of status, nidification, etc., pp. 1–214. Pp. 229–74 with special title-page, contain a series of *Original Sporting Sketches compiled by David Denne*, 1895, followed by the Provincial fish and game laws for 1896, in French and English, pp. 275–81. The present copy is a presentation to a Governor of McGill University, autographed by the author.

WINTON, W. E. DE.
1902. Zoology of Egypt. *See* ANDERSON, J.

WISCONSIN AUDUBON SOCIETY. 1898–1914. *See* BY THE WAYSIDE.

WISCONSIN NATURAL HISTORY SOCIETY. (Founded 1857.)
1858–82. Jahresbericht. (All pub.)
1884–8. Proceedings. (All pub.)
1889–96. Occasional Papers.
1900–30. Bulletin.

WISCONSIN NATURALIST. *Madison.*
1890–1. (All pub.)

WIS- EN NATUURKUNDIG TIJDSCHRIFT. (Vlaamsch Natuur-, wis- en Geneeskundig Congres.) **1921–***date.* *Ghent.*

WISHART, G. M.
1931. Groundwork of Biophysics. *8vo. pp. 344.* *London.*

WISSENSCHAFTLICHE ERGEBNISSE DER DEUTSCHEN GRAN-CHACO-EXPEDITION 1925–26.
1930. *8vo.* *Stuttgart.*

The report of a very important natural history expedition to Argentina, Bolivia, and Paraguay. The account of the birds is published in 22 parts, 43 plates, and 13 text-figures by Dr. Alfred Laubmann. A volume devoted to other vertebrate classes is in course of preparation.

WISSENSCHAFTLICHE FORSCHUNGSBERICHTE. *Dresden.*
1921–*date.* Naturwissenschaftliche Reihe.

WISSENSCHAFTLICHE MEERESUNTERSUCHUNGEN. *Helgoland.*
1871–91. Vols. 1–21.
1894–*date.* New series.

WISTAR INSTITUTE OF ANATOMY AND BIOLOGY. *See* JOURNAL OF MORPHOLOGY AND PHYSIOLOGY.

WITCHELL, CHARLES A. [d. 1907] and **STRUGNELL,** W. BISHOP.
1892. The fauna and flora of Gloucestershire. *8vo. pp. 24+301. 10 pl. 5 figs. 2 indexes.* *Stroud.*
1896. The evolution of bird-song. *8vo. pp. 10+253. append. bibliogr. index.* *London.*
1899. Cries and call-notes of wild birds. *12mo. pp. 11+84. index.* *London.*

WITHERBY, HENRY FORBES [1873–].
1894. Forest Birds: their Haunts and Habits. *8vo. pp. 98. 8 pl. text-figs.* *London.*
1902. Bird hunting on the White Nile; a naturalist's experiences in the Soudan. *8vo. pp. 12+117. front. 24 figs. 2 append. index.* *London.*

A very interesting account of Egyptian bird life, having been reprinted with slight alterations from *Knowledge*, 1901.

1912. (A) hand-list of British birds. *See* HARTERT, E.
[**1913**]. The sequence of plumages of the rook. With special reference to the moult of the 'face'. *8vo. pp. 14. 7 pl.* *London.*

Author's reprint.

******** and **others.**
1919–24. A practical handbook of British birds. *2 vols. 8vo.* Vol. 1, *pp. 16+532. 17 pl. (6 col.). 196 figs. glossary. 2 indexes.* Vol. 2 (Pt. 1), *pp. 12+448. 6 pl. (2 col.). 122 figs.* (Pt. 2), *pp. 449–959. 7 pl. (2 col.). index.* *London.*

A comprehensive manual of British ornithology with descriptions of different plumages, measurements, habits, distribution, migration, glossary of terms, keys to the species, etc. The text is by various authors, each of whom is responsible for certain sections. The work was published in 18 parts. In the copy from the E.S.W. Library the covers of parts 9–18 are bound in.

1924. A check-list of British birds. *8vo. pp. 6+78.* *London.*

A reprint of pp. 903–36, Witherby's *A Practical Handbook*, printed on one side of the sheets only, leaving room for notes and remarks, etc. The list registers 496 forms, representing 418 species.

WJESTNIK PTIZEWODSTWA. Russian. Title in German: Zeitschrift für Vogelzucht. (?)**1897–1916.** Monthly. *8vo.* Suspended? From *Nat. Novitates*: 1897–1916; each year 12 monthly parts. *St. Petersburg.*

WOBURN LIBRARY OF NATURAL HISTORY.

1903–4. Edited by the Duke of Bedford. *5 vols.*

Three volumes of this admirable series are on vertebrate zoology: British Mammals by Sir Harry Johnston, 1903; British Freshwater Fishes by Sir H. Maxwell, 1904; and British Salt-water Fishes by F. G. Aflalo, 1904. All these are in the Blacker Library of Zoology.

WOCHENSCHRIFT FÜR VOGELZUCHT. *See* PTIZEWODSTWO, etc.

WOLCOTT, ROBERT HENRY.

1904. (A) preliminary review of the birds of Nebraska. *See* BRUNER, L.

WOLF, JOHANN [1765–1824] and **MEYER,** B.

1805–21. Naturgeschichte der Vögel Deutschlands, etc. *2 vols. and atlas. folio. 176 col. pl.* (Wanting.) *Nürnberg.*

This elaborate and well-illustrated treatise was issued in 29 parts of six plates each. Additional parts were in preparation. It is quite rare.

******** and **MEYER,** B.

1810. Taschenbuch der deutschen Vogelkunde. *See* MEYER, B.

1816–22. Abbildungen und Beschreibungen merkwürdiger naturgeschichtlicher Gegenstände. *2 vols. 4to. 72 col. pl.* *Nürnberg.*

The McGill copy is incomplete.

1822. Zusätze zu dem Taschenbuch der Deutschen Vogelkunde. *3 Theile. 8vo.*

WOLF, JOSEF [1820–99].

1854. Feathered favourites, twelve coloured pictures of British birds. *8vo. pp. (6)+54. 12 pl. (col.).* *London.*

Good examples of the work produced by this master of animal portraiture. A few of the numerous volumes that he illustrated are mentioned in this *Catalogue.*

1861–7. Zoological Sketches. Edited by D. W. Mitchell and P. L. Sclater. *folio. 50 col. pl.* *London.*

There are two series of this Atlas (with its descriptive text) by an illustrator who is generally regarded as the most artistic of British animal painters. The subjects are in this instance from the London Zoo.

ca. **1870.** *See* ORIGINAL DRAWINGS. WOLF, JOSEPH.

******** and **ELLIOT,** D. G.

1874. The life and habits of wild animals. With descriptive letter-press by Daniel Giraud Elliot. *4to. pp. (10)+72. 20 pl. T. of c.* *London.*

The copy in hand is of the large paper edition and contains the (last) fine series of illustrations drawn by this noted artist.

1895. Life of Josef Wolf. *See* PALMER, A. H.

WOLFENDEN, RICHARD NORRIS. **1909.** *See* CHALLENGER SOCIETY.

WOLF-HARNIER, EDUARD.

[**1910**]. Gefiederte Baukünstler; Charakterschilderungen aus der Vogelwelt, mit besonderer Berücksichtigung der Nestbauart der Vögel. *8vo. pp. 7+150. 3 pl. (col.). 36 figs. T. of c.* *Leipzig.*

WOLLASTON, ALEXANDER FREDERICK RICHMOND [1875–].

1912. Pigmies and Papuans, with Appendix on Birds. *? London.*

1916. Reports on the collections made by the British ornithologists' union expedition and the Wollaston expedition in Dutch New Guinea. *See* BRITISH ORNITHOLOGISTS' UNION EXPEDITION.

1921. Life of Alfred Newton, professor of comparative anatomy, Cambridge university, 1866–1907. *8vo. pp. 15+332. 5 pl. (portr.). append. index.* *London.*

This life of the famous ornithologist, by one of his pupils, was not completed until 1921. Newton was an indefatigable worker and writer as may be judged from the appendix, pp. 316–24, which contains a list of his published papers.

WOLLEY, JOHN [1823–59] and **NEWTON,** ALFRED.

1864–1907. Ootheca Wolleyana: an illustrated catalogue of the collection of birds' eggs, begun by the late John Wolley, jun. . . . and continued with additions, by the editor, Alfred Newton. *2 vols. 8vo.* Vol. I, *pp. 39+531. 26 col. pl. 1 fig. (portr.). index.* Vol. II, *pp. 6+665+96. 11 col. pl. 1 map. 2 figs. index. append.* *London.*

This famous work was issued in four parts.

WOLSTENHOLME, DEAN [1757–1837].

1852–1915. [Pigeons; a scrapbook including engravings by Dean Wolstenholme, and various pictures and articles on pigeons by others.] *folio. 16 pl. (col.). 38 figs.* [*London.*]

The first 12 plates are fine portraits of fancy pigeons by D. Wolstenholme; the other pictures are taken from the *Fanciers' Gazette* and *Feathered World.*

WONDERS OF THE WORLD (THE).

n.d. A Popular and Authentic Account of the Marvels of Nature and of Man, by Sir Harry Johnston and others. *2 vols. 4to. 26 col. pl. 976 pl. (photos.).* *London.*

WOOD, CASEY ALBERT [1856–] and **SLONAKER,** JAMES ROLLIN.

1915. The eyelids and lachrymal apparatus of birds. *8vo. pp. 18. 11 figs.* *Chicago.*

The results of these researches were first reported to the *Ophthalmological Congress at Oxford*, in July 1914, and published in Casey Wood's *American Encyclopedia of Ophthalmology*, July 1915. The present paper is an author's reprint.

1917. The fundus oculi of birds, especially as viewed by the ophthalmoscope; a study in comparative anatomy and physiology. Illustrated by 145 drawings in the text; also by sixty-one colored paintings prepared for this work by Arthur W. Head. *folio. pp. 5+180. 61 col. pl. 145 text-figs.* *Chicago.*

The above is thus appraised by Zimmer (*Ayer Cat.*, p. 689): 'A most important monograph on the eyes of birds, describing "the conditions found in such birds (especially in living birds) as are most likely to be useful in a study of comparative ophthalmology"; a "description of the intraocular appearances and the methods employed in viewing them". In preparing the monograph, the author examined the eyes of some representative of almost all of the different orders of birds, and the descriptions and excellent figures and plates describe and illustrate the results of this comparative study.' *See also* ORIGINAL DRAWINGS. HEAD, A. W.

[**WOOD,** C. A. (*contd.*)]

1919. The Eyes of the Burrowing Owl. *8vo. pp. 25. 1 col. pl.* *New York.*

Author's reprint from *Contributions to Medical and Biological Research*, dedicated to Sir William Osler on his seventieth birthday.

[**1920–7**]. Material for a work on the birds of Fiji. *4to.* (*165 l.*). *n.p.*

Manuscript notes and typewritten material (attached to 165 leaves of bound scrap-book) together with 22 photographs of paintings of Fiji birds and five snapshots of a collecting trip in 1923.

1922. My quest of the British nightingale. *4to. pp. 40. n.p.*

A MS. account with newspaper clippings from British and American papers of the writer's journey to England to make a study of the nightingale in his native haunts, as did before him John Burroughs and after him Joseph Bock and others. Two poems from *Punch* on the subject of the author's quest are included.

1922. Letter from Georgetown, British Guiana. *4to. no t.-p. pp. 20+6.*

A mimeographed letter from Dr. Casey Wood to a few relatives and personal friends describing the delights of a journey to South America, with descriptions of interesting birds, other animals, and flowers—especially orchids—met with on the trip.

1922–4. Zoological odds and ends collected during a journey through Australasia and the islands of central Polynesia. *4to. no t.-p. illust.* (*photos.*). *n.p.*

Unpublished MS., clippings from newspapers, and other documents relating a year's tour in Australasia and Polynesia.

1923. The birds of Fiji. *8vo. pp. 8.* [*Suva?*]

A short general account of the birds of the islands, reprinted from the *Handbook of Fiji*, 1923.

1923. In sunny southern seas. *4to. pp.* [*2*]+*39.* *Suva.*

An account by the author, written from Oceania, describing some of his experiences during the year 1923, and which was published under this caption by the *Montreal Daily Gazette* in 11 instalments, May 20 to May 31, 1924. In an autographed note the author states that there are several typographical and other errors in the newspaper instalments which are uncorrected.

1923. Letter from Suva, Fiji Islands. *4to. 35 ff. map.* *Suva.*

Privately printed account of ten months in the South Seas mostly for the study of its bird life.

1923–6. E Scriptoribus. A few Author's reprints, separately bound.

CONTENTS:

My Quest of the Imperial Parrot. 1924.
The Fijian Crimson-Breasted Parrot. 1923.
Heterochorsis in the Crimson-Breasted Parrot. 1924.
Sketches from the Notebook of a Naturalist-Traveler in Oceania during the Year 1923. 1925.
A Letter from T. M. Brewer to Osbert Salvin. 1923.
The Cayenne or River Ibis in British Guiana. 1923.
Developmental Color Changes in the Eyes of New Zealand Gulls. 1924.
The Starling Family at Home and Abroad. 1924.
Lessons in Aviculture from English Aviaries. 1926.
The Nest of the Baya Weaver Bird. 1926.

1924. Birds of Fiji. *8vo. pp. 119–25.* *Suva.*

Author's reprint from *Colony of Fiji*, 1874–1924.

[**1924**]. The golden doves of Fiji. *8vo. pp.* [*4*]. *1 fig.* [*Chicago.*]

Reprinted from *Bird-Lore*, 1924. A detailed account (during a ten months' residence) of the indigenous Golden Dove of the Fiji Islands, perhaps the most interesting, although not the rarest and most beautiful of the indigenous doves of these islands. The illustration is from a painting made for the author by C. Cheverlange.

******** and **INGERSOLL,** ERNEST.

1924. On the Spanish Main; notes on the natural history of the West Indies and British Guiana. *folio. 7 ll. 9 figs.* [*Montreal.*]

A series of cuttings from the *Montreal Star* pasted on one side of seven large leaves with nine illustrations and bound with Jerdon's *Illustrations of Indian Ornithology*, No. 4. The notes are observations of faunal and floral life made during two winters spent in Barbadoes and British Guiana, one of them with William Beebe at the Tropical Station of the New York Zoological Society, Kartabo, on the Essequibo River. The editor, Ernest Ingersoll, has added a few notes and is responsible for the illustrations.

1925. Lady (Elizabeth) Gwillim, artist and ornithologist. *8vo. pp. 594–9.* [*London.*]

Author's separate from the *Ibis*, July 1925. An account of how the writer accidentally found in a London bookshop a large portfolio containing 121 choice colored drawings of Indian birds by Lady Gwillim. Following a description of the 'find' comes some account of the drawings, and the career of the artist herself.

******** and **WETMORE,** ALEXANDER.

1925–6. A collection of birds from the Fiji Islands. *8vo. pp.* (*3*)+(*43*)+(*46*). *2 pl.* (*col.*). *2 figs.* (*maps*). [*London.*]

Author's reprint from the *Ibis* of October 1925 and January 1926. The collection secured through the efforts of Dr. Casey Wood (to October 1924) included 259 skins and one skeleton, the annotated list of these being by Dr. Wetmore, while Dr. Casey Wood supplied the introductory matter, with notes on the species that came under his own personal observation, as well as remarks on bird protection, extinct birds, etc., in Fiji. The two colored plates are by W. J. Belcher, one of the artists engaged by Dr. Casey Wood to illustrate the birds of the Islands. *See* BELCHER, W. J. AND OTHERS, *Paintings of the Birds of Fiji*, 1917–27, in this *Catalogue*.

[**1928**]. Eyes of birds and other vertebrates. *72 l. 20 pl.* (*col.*). *n.p.*

Typewritten abstract of a paper read before the *Pacific Division of the American Association for the Advancement of Science* at Claremont, Calif., June 14, 1928. The drawings (attached to the leaves of the bound scrap-book) are accompanied by MS. notes by Dr. Wood, but most of them were never published. Incorporated with the above is a review—also typewritten—by Dr. Wood of G. L. Johnson's *Contributions to the Comparative Anatomy of the Reptilian and the Amphibian Eye* (*Phil. Trans. Roy. Soc. of London*, Series B, vol. 215, pp. 315–53, plates 20–5).

1929. *See* FREDERICK II, EMPEROR, 13th century.

1929. Some Adventures of a Naturalist in the Ceylon Jungle. *8vo. 6 pl.* *Washington.*

Author's reprint from *Smithsonian Report*, 1928, Publication 2999, giving an account of two years' exploration of the forest and tank districts of Ceylon, especially of its flora and fauna.

1930. Psittacosis; or the Fate of John IIIrd. *8vo.* [*London.*]

An account of the parrot fever scare and its tragic effect on thousands of innocent birds, among them the death of the famous *Amazona oratrix*, John the Third, whose portrait adorns the bookplate of the E.S.W. Library.

1931. Bird portraits in Ancient and Medieval Art. *ff.* 200. 190 (collected) photographs. [*Rome.*]

WOOD, CHARLES THOROLD [1777–1852].

1835? The ornithological guide, in which are discussed several interesting points in ornithology. *8vo. pp. 18+236. index.* *London.*

A popular manual with an appendix listing certain British and some non-British birds, with their French, German, and Latin synonyms.

WOOD, JOHN GEORGE [1827–99].

1857. Sketches and Anecdotes of animal life. 4th ed. *London.*

1858. My feathered friends. *12mo. pp. 12+396. 20 pl. index.* *London.*

1864. The illustrated natural history. *3 vols. 4to.* Vol. I, Mammalia. Vol. II, Reptiles, fishes, etc. Vol. III, Birds. *pp.* (*4*)+*786. front. 494 figs. index.* *London.*

The first edition of this popular treatise is rare. It was published in 1851–3; and there have since appeared several impressions, one with the title *Animate Creation*.

1864–5. Homes without Hands, etc. *8vo.* (Wanting.) *London.*

One of the numerous works of this deservedly popular writer, in this instance an attempt to explain indirectly and in simple language the principles of faunal anatomy and classification.

1866. Homes without hands, being a description of the habitations of animals. *8vo. pp. 20+632. 21 pl. 84 figs. index.* *New York.*

An American edition of this popular work.

1868–70. The natural history of man. *2 vols. illust.* *London.*

1870. Bible animals; being a description of every living creature mentioned in the Scriptures from the ape to the coral. *8vo. pp. 29+652. 24 pl. 78 figs. index.* *New York.*

The American edition of the (London) first issue of 1869.

1871. Strange dwellings; being a description of the habitations of animals. *12mo. pp. 12+411. front. 56 figs. index.* *London.*

Abridged from *Homes without hands.*

1877. Nature's teachings: human invention anticipated by nature. *8vo. pp. 20+533. front. figs. index.* *London.*

This work is intended to show the close connection between nature and human inventions, there being hardly an invention of man that has not its prototype in Nature. Birds figure at intervals all through these pages, such, for instance, as the woodpecker with its beak and feet representing the boring and grasping tools invented by man, etc.

1879. Wanderings in South America. *See* WATERTON, CHARLES.

**** and **HOLDER,** JOSEPH B.

[**1885**]. Animate creation; popular edition of 'Our living World', a natural history. *3 vols. 4to.* Vol. I, Mammals. Vol. II, Birds. Vol. III, Fishes, Reptiles, etc. *New York.*

Originally published in 60 parts. First edition as *The Illustrated Natural History*, the text, however, in this edition, where it relates to American animals, being revised and adapted by the editor, with the latest information added. The classification adopted for the birds, vol. II, is that of Robert Ridgway.

1893. Illustrated natural history: comprising descriptions of animals, birds, fishes, reptiles, insects, etc. *8vo. pp. 470. illust.* *New York.*

**** and **WOOD,** THEODORE.

n.d. The field naturalist's handbook. *8vo. pp. 7+167.* *London.*

Largely a compilation. An interleaved copy with ink MS. annotations.

n.d. Illustrated natural history. Birds. *4to. pp. 788. many figs. in text. index.* *New York.*

This work, crudely printed and illustrated and on poor paper, seems to be an American reprint of the author's volume on Birds from his *Illustrated Natural History*, London, 1861–3.

n.d. Our domestic pets. *12mo. pp. 339. 13 pl. 95 figs.* *London.*

WOOD, NEVILLE [*fl.* 1835–9].

1836. British song birds; being popular descriptions and anecdotes of the choristers of the groves. *12mo. pp. 12+408. index.* *London.*

A popular but systematic description of song-birds with many original observations of their habits. The present volume is an autographed copy that once belonged to Henry G. Vennor.

1836. The ornithologist's text-book; being reviews of ornithological works; with an appendix containing discussions on various topics of interest. *8vo. pp. 4+232. index.* *London.*

A rather well-written compendium containing a useful review of ornithological works accessible to the author, as well as a useful Synopsis of Systems, including those of Willughby, Brisson, Linnaeus, Latham, *et al*; *On the English Nomenclature of Birds*, and other articles.

WOOD, ROBERT WILLIAMS [1868–].

[**1907**]. How to tell the Birds from the Flowers. Verse. *8vo. illust.* [O. 5597.] *San Francisco.*

[**1908**]. Animal Analogues. Verse. *8vo. illust.* [O. 5598.] *San Francisco.*

Both this volume and the previous one are whimsical studies intended to while away a weary hour.

WOOD, SARA.

1892. Dwellers in our gardens; their lives and works. *12mo. pp. (8)+184. 3 pl. (col.). 94 figs. T. of c.* *London.*

WOOD, THEODORE [1862–].

1887. Our bird allies. *8vo. pp. 10+214. text-figs. T. of c.* *London.*

1905. The zoo, past and present, etc. *See* ELWES, A. J.

1921. Birds one should know, beneficial and mischievous. *8vo. pp. 11+132. 24 pl. (8 col.). 188 figs. T. of c.* *London.*

n.d. (The) field naturalist's handbook. *See* WOOD, JOHN GEORGE.

WOOD, THOMAS WILLIAM.

n.d. Curiosities of ornithology. *8vo. pp. 64. 9 col. pl. 2 text-figs.* *London.*

Nine chapters, written in popular style, on some of the rare and curious birds of the world. The book is scarce, not listed in the *Cat. Br. Mus.* (*Nat. Hist.*).

WOOD, WALTER.

n.d. Adventures with big fish. *8vo. pp. 319. 12 illust.* *London.*

Stories of adventures with dolphins, whales, manatees, and walrus (these mammals being called 'fish' for the purposes of the author); also with sawfish, swordfish, tarpon, sharks, etc.

WOOD, WILLIAM [1774–1857].

1807. Zoography; or, The beauties of nature displayed. In select descriptions from the animal . . . kingdom. *3 vols. 8vo. illust.* *London.*

Vol. I is devoted to natural history in general, vol. III to domestic animals. The present copy is from the Mullens Library with bookplate.

1824. Catalogue of an extensive and valuable collection of the best works on natural history, arranged in classes according to the Linnean system. *8vo. pp. (4)+136. front. T. of c.* *London.*

An interesting old priced catalogue, showing the value placed on books in former days as compared with the present time. The ornithological portion occupies pp. 6–16.

WOODCOCK, ARTHUR ROY [1880–].

1902. Annotated list of [325 species of] the birds of Oregon. *8vo. pp. 2+117. illust. addend. index.* *Oregon.*

(Oregon Agric. Exper. Station, Bulletin No. 68.)

WOODFORD, CHARLES MORRIS [1853–].

1890. A naturalist among the head-hunters; being an account of the three visits to the Solomon islands in the years 1886–88. *8vo. pp. 12+249. illust.* *London.*

WOODHOUSE, S. W. **1853.** *See* UNITED STATES. SITGREAVES EXPEDITION.

WOODROFFE, W. L.
1902. Bird catching. *See* HUDSON, W. H.

WOODRUFF, FRANK MORLEY.
1907. (The) birds of the Chicago area. (Chicago Acad. of Sciences. Nat. Hist. Survey Bulletin.) *pp. 222. 12 pl. bibliogr. 2 indexes. Chicago.*
An annotated list of the species known to inhabit an area comprised of all of Cook and Du Page Counties, the nine townships of Will County, and the northern portion of Lake County, Indiana. Notes furnish local distribution, etc., with scientific and vernacular synonyms, followed by a local bibliography.

WOODRUFFE-PEACOCK, EDWARD ADRIAN [1858–].
1898. The natural history of Lincolnshire. *8vo. pp. 136. 2 pl. index. Horncastle.*
The Natural History section of *Lincolnshire Notes and Queries.*

WOODS, HENRY (*F.G.S.*).
1891. Catalogue of the type fossils in the Woodwardian Museum, Cambridge. With a preface by T. M. Hughes. *8vo. pp. 14+180. T. of c. Cambridge.*

WOODS, JULIAN EDMUND TENISON [1832–89].
1882. Fish and fisheries of New South Wales. *8vo. pp. 11+213. 46 photo. pl. text-figs. Sydney.*

WOOD'S HOLE, MASS. *See* MARINE BIOLOGICAL LABORATORY.

WOODWARD, ARTHUR SMITH [1864–] and **SHERBORN,** C. DAVIES.
1890. A Catalogue of British Fossil Vertebrata. *8vo. pp. xxxv+396. T. of c. London.*
Among the important contributions to this extensive study.

1898. Outlines of Vertebrate Paleontology. *8vo. pp. 24+470. 1 pl. figs. in text. Cambridge.*
Admirably adapted to the wants of advanced students.

1904. A guide to the fossil mammals and birds in the dept. of geology and palaeontology in the British Museum. 8th ed. *8vo. pp. 16+100. 6 pl. 88 figs. index. London.*
An entirely rewritten edition of the 1896 issue. An almost identical ninth edition was published in 1909, and a similar tenth edition in 1923. A presentation copy from the Trustees of the British Museum.

1907. Fossil Fish from Natal. Third and Final Report. *See* NATAL.

WOODWARD, BERNARD BARHAM [1853–] and **others.**
1903–*date*. Catalogue of the Books, Manuscripts, Maps and Drawings in the British Museum (Natural History). *4to.* A–Z. *London.*
Six volumes (one of which is Supplement, A–I, 1922) of this indispensable work of reference have already been issued by the Museum authorities. Too much cannot be said in praise of this very remarkable list. What workers in the bibliography of natural history would do without it is impossible to say; and for librarians, the tasks involved in their dealings with an immense subject are greatly lightened. The Compiler of this *Catalogue* wishes once more to express his appreciation of the literary and scientific excellence of a monograph of which he has made such liberal use.

WOODWARD, (*Mrs.*) ELLEN S., *Collector.*
n.d. [Letters and autographs of zoologists with biographies and portraits.] *12 vols. 4to. no t.-p. illust. [London.]*
A collection of 12 vols. of autograph and signed letters of zoologists, including many ornithologists, with their portraits and biographies. About 1,500 letters. This unique and valuable series includes four letters of Darwin, some of Alfred R. Wallace, Huxley, *et al.*

WOODWARD, HENRY [1832–1921].
1877. List of the [the author's] principal scientific papers. Monographs, & addresses. *8vo. pp. 12. Hertford.*
A supplementary list, 1877–97, was published in 1897.

WOODWARD, R. B. and **WOODWARD,** J. D. S.
1899. Natal birds, including the species belonging to Natal and the eastern districts of the Cape Colony. *8vo. pp. 5+215. front. (col.). append. index. Pietermaritzburg.*

WOODWARDIAN MUSEUM, CAMBRIDGE.
1891. Catalogue of the type fossils in the Woodwardian Museum. *See* WOODS, HENRY.

WOODWORTH, FRANCIS CHANNING [1812–59].
1854. Stories about birds. *8vo. pp. 13+336. 59 pl. 21 figs. T. of c. Auburn.*

WOOLHOPE NATURALISTS' FIELD CLUB. (Founded 1851.)
1856–1930. Transactions, etc.

1888. Notes on the Birds of Herefordshire.

WOOLWICH AND WEST KENT.
1909. A Survey and record of Woolwich and West Kent, containing geology, botany, and zoology. *Woolwich.*

WORCESTER, DEAN CONANT [1866–] and **BOURNS,** FRANK S.
1894. Preliminary Note on the Birds and Mammals . . . of the Menage Scientific Expedition to the Philippine Islands. *4to. pp. 64. 8vo. St. Paul and Minneapolis, Minn.*
Authors' excerpt from *Occasional Papers*, vol. i, No. 1, *Minnesota Academy of Natural Sciences.*

******** and **BOURNS,** FRANK S.
1898. Contributions to Philippine ornithology. *8vo. pp. 549–625. Pl. LV–LXI. bibliogr. index. Washington.*
From the *Proceedings of the U.S. Nat. Mus.*, vol. xx. Part I of this volume has a list of birds known to inhabit the Philippine and Palawan Islands. Part II consists of notes on the distribution of Philippine birds. The present copy is an interleaved presentation, autographed by the senior author.

1906. (A) hand-list of the birds of the Philippine Islands. *See* MCGREGOR, RICHARD C.

WORCESTER NATURAL HISTORY SOCIETY. *Worcester, Mass.*
1883?–*date*. Annual Reports.

WORCESTERSHIRE NATURALISTS' CLUB. *Worcester, England.*
1847/96–1910? Transactions.

WORLD LIST OF SCIENTIFIC PERIODICALS PUBLISHED IN THE YEARS 1900–
1921. *2 vols. 4to.* *London.*

A valuable alphabetical list of 24,028 titles (not a catalogue) compiled by W. A. Smith and L. A. Sheppard (with L. Wharton for the Slavonic entries) under the direction of A. W. Pollard. Proceedings of international congresses are collected under this heading.

WORLD'S CONGRESS OF ORNITHOLOGY.
See ROOD, E. IRENE.

WORM, OLE [1588–1654].
1655. Museum Wormianum; seu, Historia rerum rariorum, tam naturalium, quam artificialium, tam domesticarum, quam exoticarum, quae Hafniae Danorum in aedibus authoris servantur. *folio. pp. 10+388. 2 pl. text-figs.* *Lugduni Batavorum.*

One of the earliest and rarest descriptive catalogues of the first museum in Copenhagen, published in Leyden. It contains an original illustration and description of the Loon, called Lumme in Iceland; and a celebrated chapter on the Lemming or *Mus Norvagicus*, recording the story of its descent from the clouds. The true nature of the Narwhal (*Unicornu marinum*) is revealed for the first time in this work. Among other objects in the collection were numbers of stuffed bird specimens. Cap. XVI, pp. 290–312, is devoted to avian life in general with appropriate, and rather good copper-plate portraits of ten species, e.g. the penguin and the guinea-fowl. There are two copies available for the student in the McGill libraries, one from the Dean Adams Library, both Elzevirs.

WORSLEY-BENISON, H. W. S.
1889. Haunts of nature. *8vo. pp. 6+252. 2 pl. T. of c.* *London.*

WOSSIDLO, PAUL [1836–].
1888. Leitfaden der Zoologie. 2nd ed. *illust.* *Berlin.*

WOTTON, EDWARD [1492–1555].
1552. Edoardi Wottoni . . . De differentiis animalivm libri decem. *folio. (pp. viii)+ff. 220+ (pp. 26.)* *Lutetiae Parisiorum.*

This book is distinguished from others of its class in the sixteenth century by its marginal notes and excellent index. The initial letter of each of the ten books is enlarged and decorated but there are no other illustrations. Both the Blacker and Osler libraries have a copy of this fundamental treatise.

WREN, THE.
1909. Bulletin of the Norfolk Bird Club. A Monthly Magazine devoted to the Interests of the Club. Editor, James L. Peters. Vol. I, 1909, No. 1, January–No. 7, October. (All issued.) *Cambridge, Mass.*

The former editor kindly wrote the Compiler: 'The principal contributors were Joseph Kittredge, Richard M. Marble, James L. Peters, Barron Brainerd, and W. Charles Levey. The paper contained notes of local interest, reports on migration activities of members, etc.'

WRIGHT, ALBERT HAZEN.
1914. The Anura of Ithaca. *8vo. pp. 7+98. 21 pl.* *Washington.*

WRIGHT, HORACE WINSLOW [1848–1920].
1909. [120 species of] Birds of the Boston Public garden, a study in migration. *8vo. pp. 20+238. 8 pl. index.* *Boston.*

1911. The [186 species of] birds of the Jefferson region in the White mountains, New Hampshire. (*Proc. Manchester Institute of Arts and Sciences*, vol. 5.) *8vo. pp. 126. index.* *Manchester, N.H.*

WRIGHT, LEWIS [1838–1908].
[1874–6]. (The) illustrated book of pigeons. *See* FULTON, R.

1879. The practical pigeon keeper. *8vo. pp. 6+ 232. 9 pl. 59 figs. T. of c.* *London.*

n.d. The illustrated book of poultry. *London.*

WRIGHT, *Mrs.* MABEL (born OSGOOD) [1859–] and **COUES,** ELLIOTT.
1900. Citizen bird; scenes from bird-life. *8vo. pp. 14+430. 136 figs. index.* *New York.*

A popular book, the first edition in 1897 with several subsequent printings.

1906. The friendship of nature; a New England chronicle of birds and flowers. *8vo. pp. 7+238. front.* *New York and London.*

1907. Gray Lady and the birds; stories of the bird year. *8vo. pp. 20+437. 12 pl. (col.).* *New York.*

1917. Birdcraft, a field book of two hundred song, game, and water birds. *8vo. pp. 23+317. 80 pl. 2 indexes.* *New York.*

WRIGHT, MAGNUS VON.
1847. Helsingfors traktens fogelfauna, jemte anmärkningar vid en del dithörande arter (Enligt anteckningar ifrån och med sommaren 1831 till och med våren 1847). *4to. pp. 36. col. pl.* *Helsingfors.*

An account of the birds of Helsingfors and, incidentally, the chief species of Finland's avifauna.

******** and **PALMÉN,** J. A.
1859–73. Finlands foglar, hufvudsakligen till deras drägter beskrifna; senare af delningen, efter författarens död omarbetad med särskild hänsyn till arternas utbredning och utgifven af J. A. Palmén. (Finska Vetenskaps-Societeten. Bidrag till kännedom af Finlands natur och folk, pt. 22.) *2 vols. 8vo.* Vol. I (Wright), 1859, *pp. xiv+315.* Vol. II (Palmén), 1873, *pp. xvii+681. Helsingfors.*

A systematic treatise on the birds of Finland, begun by Wright in 1859 and completed after his death by Palmén. Vol. II is in the original wrapper and from C. Hart Merriam's library.

******, WRIGHT,** W., and **LÖNNBERG,** E.
1917–29. Svenska foglar efter naturen, etc.

Professor Einar Lönnberg is engaged on this revised edition of the Wrights' well-known treatise on Swedish avifauna. The present work consists of 105 parts, with over 200 colored plates. Doubtless this extremely valuable printing will be completed. The first edition appeared in 1828–38, and has long been regarded as the most important work on the subject.

WRIGHT, R. G. and **DEWAR,** DOUGLAS.
1925. The ducks of India. *8vo. pp. 231. 22 pl. (col.). index.* *London.*

WRIGHT, ROBERT RAMSAY [1852–].
1885. *See* KINGSLEY, J. S.

1898–*date.* Toronto University Studies. Biological Series. *8vo.* *Toronto.*

WRIGHT, S. and **CASTLE, W. E.**
1916. Inheritance in Guinea-Pigs and Rats. *8vo. pp. 198. 7 pl. 7 figs.* *Washington.*

WRIGHT, THOMAS [1810–77].
1841. Popular Treatises on Science. *8vo.* Contains Philip de Thaun's *Livre des Créatures*, and Bestiary. [O. 6554.] *London.*

WRIGHT, WILHELM VON [1810–].
1892–5. Skandinaviens fiskar. Bearb. och forts. af F. A. Smitt. *2 vols. pp. 1,239. 53 col. pl. 207 figs. 308 illust. in text.* *Stockholm.*

A beautiful work on Scandinavian fishes, enlarged from the original edition published in 1836–57. The present monograph has the text in English; the first edition was printed in Swedish and Latin. It is probably the most important of the many treatises on fishes of the North European seas.

WUERZBURGER NATURWISSENSCH. ZEITSCHRIFT.
1860–7. Vols. I–VI. (All pub.)

WUESTNEI, CARL [1843–1902] and **CLODIUS,** G.
1900. Die Vögel der . . . Mecklenburg. *8vo. pp. 363.* *Güstrow.*
This local history is an authors' separate, describing at considerable length and in scientific, systematic fashion the birds of the Mecklenburg area.

WUNDT, W.
1892. Vorlesungen über die Menschen- und Tierseele. 2nd ed. *Hamburg.*

WURFFBAIN, JOHANNES PAULUS [1655–1711].
1683. Salamandrologia h. e. descriptio . . . salamandrae, etc. *4to.* [O. 4291.] *Norimbergae.*

WURM, WILHELM.
1885. Das Auerwild, dessen Naturgeschichte, Jagd und Hege. 2nd ed. *4to. pp. 20+339. 2 pl. T. of c.* *Wien.*
A complete treatise on the Black Cock especially from the viewpoint of the gamekeeper and huntsman. From the Cabanis-Reichenow collection.

WÜRTTEMBERGISCHE NATURWISSENSCHAFTLICHE JAHRESHEFTE. *See* VEREIN FÜR VATERLÄNDISCHE NATURKUNDE IN WÜRTTEMBERG.

WÜRZBURG. Fränkisches Museum für Naturkunde.
1920–4. Bericht.

WÜRZBURG. Zoologisch-Zootomisches Institut.
1874–89. Arbeiten.
1824–48. Bericht.

WU SHU 吳淑 [947–1002].
? *ca.* **1500.** Shih lei fu 事類賦; A classified encyclopedia, composed in the irregular verse style, including material on animals, birds, fishes, etc., chüan 18–23; chüan 28–30; published in the Ming Dynasty (1368–1644). *30·8×19·2 cm.* [G.]

WÜSTNEI, CARL. *See* WUESTNEI, CARL.

WYATT, CLAUDE WILMOTT [1842–1900].
1885–94. (A) monograph of the Hirundinidae. *See* SHARPE, R. B.

1894. British birds: being coloured illustrations of all the species of passerine birds resident in the British isles. Vol. I (separately published). *folio. pp. (7)+25. 25 pl. (col.). T. of c. London.*
Part of a series of fine hand-colored plates by the author, representing 50 species of resident birds. *See also* Vol. II.

1899. British birds: with some notes in reference to their plumage. Vol. II (published separately). *folio. pp. (7)+42. 42 pl. (col.). T. of c. London.*
A series of fine hand-colored plates by the author, representing 53 British passerine birds. *See also* Vol. I.

WYMAN, JEFFRIES [1814–74].
1862. Observations upon the remains of extinct and existing species of Mammalia found . . . within the Lead region of Wisconsin, Iowa and Illinois. *8vo. illust.* *Albany, N.Y.*
Author's reprint from a *Report of the Geological Survey of the State of Wisconsin,* vol. I.

WYMAN, LUTHER E. and **BURNELL,** ELIZABETH F.
1925. Field book of birds of the southwestern United States. *8vo. pp. 24+308. front. (col.). 3 maps. 346 figs. glossary. bibliogr. append. index.* *Boston.*
A reliable handbook of the birds of Arizona, southern California, and Nevada.

WYTHE, MARGARET W. and **GRINNELL,** JOSEPH.
1927. Directory to the Bird-life of the San Francisco Bay Region. *8vo. pp. 160. col. front.* *Berkeley.*

WYTSMAN, PHILOGÈNE AUGUSTE GALILÉE [1866–].
1905–14. Genera Avium. *4to. illust.* *Brussels.*
Edited by P. Wytsman.
This monumental work consists of a classified cyclopedia of the avian families in which each family is treated in a distinct (and separately paged) section by independent authors. At the present writing 26 parts have been issued (parts 1–26, 1905–14). Among the contributors are Louis Brasil, Ernst Hartert, C. E. Hellmayr, T. Salvadori, P. L. Sclater, R. Bowdler Sharpe, and W. R. Ogilvie Grant.

XANTUS, JOHN.
1859. Catalogue of birds collected in the vicinity of Fort Tejon, California. (*Proc. Academy of Natural Sciences of Philadelphia.*) *8vo. pp. 5.* [*Philadelphia.*]
Author's separate.

XENOPHON [430–357 B.C.].
1545. Opera . . . omnia. Eleven translators. On Horses, by J. Camerarius. Very rare ed. [O. 5605.] *Basil.*

1802. Xenophon's Rules . . . for Horses. *4to.* Anon. tr. of *De re equestri.* An early cavalry manual. [O. 5607.] *Westminster.*

YARKAND MISSION. 1878–91. *See* SCIENTIFIC RESULTS OF SECOND YARKAND MISSION; *also* INDIA; *also* STOLICZKA, F.

YAR MUHAMMAD KHAN SHAWKAT.
1884. Sayd-gah-i-Shawkati (or Bāz-nāma). On falconry and birds. Lithograph. *pp. 338. 22 text-figs.* *Rampur.*
This treatise was first written in Hindustani in 1883 but not published until the following year. It is said by Ivanow to be a fairly accurate treatise.

YARRELL, WILLIAM [1784–1856].
1827. Observations on the tracheae of birds; with descriptions and representations of several not hitherto figured; and on the change in the plumage of some hen-pheasants. *4to.* Pt. I, *pp. 16. 9 pl.* Pt. II, *pp. 10. 1 pl.* *London.*
Two author's separates; I. from the *Trans. Linnean Society*; II. from the *Phil. Transactions,* 1927.
William Yarrell was a famous English naturalist, the son of a bookseller whose business he later carried on. He was a keen student of Natural History and had a profound knowledge of the haunts and habits of birds and fish.

1835–6. A History of British Fishes. *2 vols. 8vo. illust.* (Wanting.) *London.*
This is the *editio princeps* of a well-known treatise, at least two others (1841 and 1859) being recognized. It was issued in 19 parts and is comparatively rare.

1837–43. A history of British birds. *3 vols. 8vo.* Vol. 1, *pp. 32+525. 194 figs. index.* Vol. 2, *pp. (4)+669. 209 figs.* Vol. 3, *pp. (4)+528. 1 pl. 192 figs.* *London.*

For many years the standard work. It was issued in 37 parts of three sheets each, at intervals of about two months. A second edition appeared in 1845, together with a supplement to the present edition, bringing it up to date; a third edition and second supplement were issued in 1856; a fourth edition (edited by Newton and Saunders) was published in 1871–85. *An Illustrated Manual of British Birds* by Saunders, 1899, is really a condensed version of the present work. The copy in hand is a special one, many of the cuts being hand colored, besides a colored plate of a Guillemot's egg at the end of vol. 3.

1845. A history of British birds. 2nd ed. *3 vols. 8vo. illust.* *London.*

The copy in hand deserves special mention since it consists of three unique volumes extra-illustrated by the addition of more than 300 woodcuts of birds by Bewick and a few proofs by the illustrator, William R. Fisher. With it are nine A.L.S. letters from William Yarrell to W. R. Fisher respecting the present copy and the work the latter had done on it in the matter of the extra-illustrations. The letters comprise 18 pp., 8vo and 4to, ranging in date from 1844 to 1855.

1845–56. Supplement. 1845.—Second Supplement. 1856. *2 vols. 8vo.* Both supplements. (*History of British Birds.*) *London.*

1856. A history of British birds. *3 vols. 8vo.* Vol. 1, *pp. 35+614. 212 figs. index.* Vol. 2, *pp. (4)+702. 197 figs.* Vol. 3, *pp. (4)+679. 225 figs.* *London.*

The third edition. The additions made in the present edition to the second are embodied in a *Second Supplement*, which brings the second edition (and with the first supplement brings the first edition) up to the date of the third.

1859. A history of British fishes. *2 vols. 8vo. front. portr. illust.* *London.*

The third edition of this important monograph, edited by Sir John Richardson, with a memoir of Yarrell.

****, **NEWTON,** Alfred, and **SAUNDERS,** Howard.

1871–85. A history of British birds. *4 vols. 8vo.* Vol. 1, *pp. 12+646. 186 figs.* Vol. 2, *pp. 7+494. 127 figs.* Vol. 3, *pp. 16+684. 255 figs.* Vol. 4, *pp. 8+531. 173 figs. index.* *London.*

The fourth edition. Much extra material, with a number of new illustrations, is added, the work being thoroughly revised and rewritten by Newton and Saunders. The present edition was published in 30 parts. In 1889 Saunders condensed the text and published it, with some of its illustrations, under the title of *An illustrated Manual of British Birds.*

YARROW, Henry Crécy [1840] and **HENSHAW,** Henry W.

1874. Geographical and geological explorations and surveys west of the one hundredth meridian. Report upon ornithological specimens collected in the years 1871, 1872, and 1873. *8vo. pp. (2)+148. T. of c.* *Washington.*

The above Report embodies an annotated list of the birds of Utah, consisting of 214 species.

1875. Notes upon Geographical distribution and variation with regard to the Zoölogy of the Western United States . . . Mammals and Birds. Report . . . upon Batrachians and Reptiles made in Nevada, Utah, California, Colorado, New Mexico and Arizona . . . 1871–74. (United States. Geog. and Geolog. Explorations and Surveys West of the One Hundredth Meridian. vol. v. Report, etc.). *4to.* *Washington.*

A similar report was made of the Fishes embodied in the same classic Report.

YEAR BOOK OF THE RHINEBECK CLUB.
1918–20. *Rhinebeck, N.Y.*

YERKES, Robert Mearns [1876–] and **YERKES,** Ada W.

1929. The great apes; a study of anthropoid life. *4to. pp. 20+652. 172 text-figs.* *New Haven.*

A monograph of great importance, especially in its treatment of the behavior of the animals studied.

YORKSHIRE NATURALISTS' UNION, HULL, ENGLAND.
1877–1912. Vols. 1–35. (All pub.) Transactions.

1907. Birds of Yorkshire. *See* Nelson, T. H.

YOSEMITE NATURE NOTES [monthly]; the publication of the Yosemite educational department and the Yosemite natural history association.
1925–30. *8vo.* *Yosemite National Park.*

YOUNG, Archibald [d. 1900].

1877. Sea fisheries by E. W. H. Holdsworth. Salmon fisheries by Archibald Young. *8vo. pp. 6+300. illust.* *London.*

YOUNG, Henry C.

1876. List of birds which breed in the vicinity of Glasgow. *8vo.* *Glasgow.*

Prepared for the visit to Glasgow in 1876 of *Brit. Assoc. for the Adv. of Sc.*

YOUNG, James. **1906.** *See* Ferguson, John.

YOUNG, Robert Thompson [1874–].

1924. The life of Devils Lake, North Dakota. (North Dakota Biological Station, 1924.) *8vo. pp. 114. 8 pl. 15 maps and diagr. 25 figs. bibliogr. index.* *Devils Lake, N. Dak.*

YOUNG, Stanley Paul [1889–].

1929. The last stand of the pack. *8vo. pp. xx+295. 16 figs. T. of c. append.* *New York.*

Joint author with Carhart, Arthur H.

YOUNG AMERICAN ORNITHOLOGIST.
1881. A Monthly Magazine devoted to the Interests of Collectors of Birds and their Eggs. Ed. by J. C. Chesebrough and C. C. Truesdale. *Each number six pages.* *Syracuse, N.Y.*

In all about eight monthly numbers were published. This small but excellent magazine contained, among other excellent sketches of bird life, a paper by W. W. Worthington on the Piping Plover.

YOUNG COLLECTOR; a monthly journal devoted to the interests of collectors of specimens of natural history. *8vo.* *Des Moines, Ia.*

Two volumes only, 1881–2, were issued when the title was changed to *The Collector.*

YOUNGHUSBAND, Francis Edward [1863–].

1921. The heart of nature; or, The quest for natural beauty. *8vo. pp. 4+235. T. of c. London.*

The author describes the natural beauties and gives an account of the flora and fauna of the Sikhim Himalaya, listing about 550 species of birds.

YOUNG NATURALIST. *London.*
1879–90. Continued as British Naturalist.

YOUNG NATURALIST. **1884.**
Galesburg, Illinois.

YOUNG OOLOGIST, THE. For the Student of Birds, Their Nests and Eggs.
1884–5. *8vo.* Monthly. Continued as the Oologist.
Gaines, N.Y.

YOUNG ORNITHOLOGIST, THE.
1885–6. Edited and Published Monthly by Arthur A. Child, Boston, Mass. *8vo.* *Boston.*

This short-lived periodical was suspended on the completion of its first volume. It was the organ of the *Young Ornithologists' Association*, and quite a number of American ornithologists of repute supplied papers and notes. Among these one may mention J. C. Cahoon, D. H. Eaton, G. F. Breninger, C. J. Maynard, E. Slade, *et al.*

YUNG, Émile Jean Jacques [1854–] and **VOGT,** C. C.
1885–94. Lehrbuch der pkt. vergleichenden Anatomie. *2 vols. 8vo. See* VOGT, C. C.

ZABARELLA, J.
1590. De Rebus Naturalibus libri XXX. *folio.* *Venetiis.*

ZACHARIAS, Emil Otto [1846–].
1889. Bilder u. Skizzen aus dem Naturleben. *8vo. illust.* *Jena.*

ZAKARIYA B. MUḤAMMED AL QAZWINI.
1912. Ajā'ibul-makhluqat, or Wonders of Creation. *4to. pp. 616. more than 100 col. cuts in text.* Hindustani translation from the original Arabic. Lithographed. *Lucknow.*

A well-known Moslem work on natural history composed and issued by the author about A.D. 1250. It was edited by F. Wüsterfeld in 1848, was partly translated by Ethé in 1868, and numerous editions in MS. and print have appeared from time to time. Several of these are in the Blacker Library. *See also* AL-QAZWINI.

ZAMBRINI, Francesco.
1874. Scelta di curiosità letterarie inedite o rare dal secolo XIII al XVII in Appendice alla Collezione di Opere inedite o rare. Dispensa CXL. Con figure in cromolitografia a fac-simile del Codice. Trattatello di falconeria. *Libro delle nature degli uccelli* fatto per lo re Danchi testo antico toscano messo in luce da Francesco Zambrini. *8vo. pp. 34+71. col. initials. 31 col. cuts in text. index.* *Bologna.*

A reproduction, as near as modern color and print allow, of a copy (A.D. 1444) of an ancient Tuscan codex on falconry and the care of birds in general. The editor gives a short bibliologic history of (mostly Italian) hunting with birds. Even the facsimile in hand is rare.

ZARAGOZA, REVISTA D. ACADEMIA DE CIENCIAS EXACTAS, FISICO-QUIMICAS Y NATURALES DE. **1916–*date*.** *See* ACADEMIA DE CIENCIAS . . . ZARAGOZA.

ZAROUDNOÏ, N. A.
1885. Oiseaux de la contrée Trans-Caspienne. *4to. pp. 73.* *Moscou.*

A separately printed, repaged paper, with an introduction by M. Menzbier, on the birds of Transcaspia. The account includes 184 species.

ZAWADZKI, Alexander [1798–1868].
1840. Fauna der galizisch-bukowinischen Wirbelthiere; eine systematische Uebersicht der in diesen Provinzen vorkommenden Säugethiere, Vögel, Amphibien und Fische, mit Rücksicht auf ihre Lebensweise und Verbreitung. *8vo. pp. 8+195.* *Stuttgart.*

ZEITSCHRIFT FÜR BIOLOGIE. **1865–*date*.** *Münich, Berlin.*

ZEITSCHRIFT FÜR FISCHEREI.
1893–1930. Vols. 1–28. *Berlin.*

ZEITSCHRIFT FÜR DIE GESAMMTEN NATURWISSENSCHAFTEN. (**Zeitschrift für Naturwissenschaften.**)
1853–1918. Vols. 1–86. (All pub.)

ZEITSCHRIFT FÜR DIE GESAMMTE ORNITHOLOGIE.
1884–8. Herausgegeben von Dr. Julius von Madarász. Quarterly. Jahrg. I–VI. *4 vols. 8vo.* (All pub.) *Budapest.*

During its comparatively brief existence this *Zeitschrift* occupied a high place in zoological literature. It was well conducted in every respect and numbered among its contributors some of the dominant names in ornithology. Among these were Stejneger, Csate, Böhm, Schalow, Landois, Tschusi zu Schmidhofen, Berlepsch, Blasius, Finsch, Meyer, *et al.*

ZEITSCHRIFT FÜR MORPHOLOGIE UND ANTHROPOLOGIE. **1899–*date*.** *See also* MORPHOLOGISCHE ARBEITEN. *Stuttgart.*

ZEITSCHRIFT FÜR OOLOGIE.
1891–1930. Organ für Wissenschaft und Liebhaberei. Monthly. *8vo.* With vol. XV (1905) the title of the periodical was altered to *Zeitschrift für Oologie und Ornithologie*, mit Beilage *Ornithologische Rundschau*, the latter edited by the Reverend Schuster. *illust.*
The editors of these journals were as follows: Hocke, I–XX (1891–1911); Grote, XXI (1911, in part); Rudiger, XXII–XXVI (1921).
There were only seven numbers issued in 1910, and eight (of the *Zeitschr. f. Oologie und Ornithologie*) in 1913; none during the War period, 1914–18.

ZEITSCHRIFT FÜR OOLOGIE, unter besonderer Berücksichtigung der Nidologie und aller das Brutgeschaft betreffender Beobachtungen.
1911–14. Herausgegeben von G. Krause. *4to.* Illustrations and other figures. Jahrg. I–VI (? All pub.) [When the above title was assumed the original *Zeitsch. f. Oologie* had been changed to *Zeitsch. f. Oologie und Ornithologie.*] *Stuttgart.*

ZEITSCHRIFT FÜR ORNITHOLOGIE UND PRACTISCHE GEFLÜGELZUCHT.
1884–1913. Organ des Verbandes der ornithologischen Vereine Pommerns und Mecklenburgs. Jahrg. III (VIII)–XXXVII. *8vo.* The continuation of the *Zeitschrift des Verbandes der ornithol. Vereine Pommerns und Mecklenburgs.* *Stettin.*

This is one of the oldest of the combined popular and scientific journals published in Germany. It had many well-trained observers as contributors of valuable papers.

ZEITSCHRIFT DES ORNITHOLOG. VEREINS IN STETTIN.
1877–81. Organ of the Verein. Six double numbers yearly. Jahrg. I–V. Continued as the *Zeitschr. des Verband. d. Ornith. Verein. Pommerns*, etc. *Stettin.*

ZEITSCHRIFT FÜR PRAKTISCHE GEFLÜGELZUCHT UND ORNITHOLOGIE.
1877–1911. *Stettin.*
1883–99. As Ornithologischer Verein zu Stettin.

ZEITSCHRIFT FÜR SÄUGETIERKUNDE, im Auftrage der Deutschen Gesellschaft für Saugetierkunde.
1926–8. *8vo.* *Berlin.*

ZEITSCHRIFT DES VERBANDES DER ORNITHOLOG. VEREINE POMMERNS UND MECKLENBURGS.
1882–3. Herausgegeben und redigirt vom Verstande des Stettiner Zweigvereins. *8vo.* This periodical is the forerunner of the *Zeitschrift f. Ornithologie und Practische Geflügelzucht*; and itself continues the *Zeitschr. des Ornith. Vereins in Stettin.* *Stettin.*

ZEITSCHRIFT FÜR VOGELLIEBHABER, ZÜCHTER UND HÄNDLER. [1872]. *Berlin.*
The Compiler knows nothing of this periodical except the reference to it in *Ibis*, 1873, p. 493. Supplement.

ZEITSCHRIFT FÜR VOGELSCHUTZ UND ANDERE GEBIETE DER NATURSCHUTZES.
1920. Mitteilungen des Bundes für Vogelschutz E. V. (Sitz Stuttgart). Herausgegeben von Dr. Herman Helfer. *8vo. illust.* Jahrgang. I Heft, Januar, 1920. *Württemberg.*
The 'Bund für Vogelschutz' forms a widespread league for the popular protection and propagation of bird life in Germany. Its officers are well-known philanthropists, and the collaborators in the conduct of its organ are equally well-known names in ornithology.

ZEITSCHRIFT FÜR VOGELZUCHT. The German title of the (Russian) *Wjestnik Ptizewodstwa* (q.v.).

ZEITSCHRIFT F. WISSENSCHAFTL. BIOLOGIE.
1924–30. Abteilung A. (or) *Zeitschrift f. Morphologie u. Oekologie d. Tiere.* *Berlin.*

ZEITSCHRIFT FÜR WISSENSCHAFTLICHE ZOOLOGIE. 1848–*date.* *Leipzig.*

ZEITSCHRIFT FÜR ZOOLOGIE UND VERGLEICHENDE ANATOMIE. *See* FAUNUS.

ZEITUNG FÜR ZOOLOGIE, ZOOTOMIE UND PALAEOZOOLOGIE. *Leipzig.*
1848–9. (All pub.).

ZEITZ, A. **1896.** *See* HORN, W. A., Report on the . . . Scientific Expedition.

ZELEDON, José C.
1882. Catalogo de las aves de Costa-Rica. *8vo. pp. 39. index.* *San José, Costa-Rica.*
A list (without comment) of the birds visiting and indigenous to Costa Rica, 388 species in all. There is also an index of genera. The volume in hand is a rare item, a presentation copy to F. Ducane Godman, from whose library it was obtained.

ZÉLÉE. *French Corvette.*
1842–54. VOYAGE AU PÔLE SUD . . . SUR L'ASTROLABE ET LA ZÉLÉE. *See* VOYAGES, FRENCH.

ZELL, TH.
1908. Unterscheidet das Tier Mann und Frau? *Berlin.*
An important question from the sociologic-biologic side of comparative zoology, which the author answers to his own satisfaction.

ZENTRALBLATT FÜR ZOOLOGIE, ALLGEMEINE UND EXPERIMENTELLE BIOLOGIE.
1912–81. Vols. I–VI. (All pub.) *Leipzig.*

ZERBST. Bericht d. Naturwissenschaft. Vereins zu Zerbst. 1922–7.

ZICHY, JENÖ [1837–1906].
1901. Dritte Asiatische Forschungsreise . . . Bd. II. Zoologische Ergebnisse. *4to. pp. 41+470. 28 col. pl. text-figs.* *Budapest and Leipzig.*
A valuable contribution to Asiatic biology, printed in Hungarian and either Latin, French, or German in parallel columns. The mammals, reptiles, and amphibia are described by L. Méhelÿ, and the birds by J. Madarász.

ZIEGLER, HEINRICH ERNST [1858–].
1907–9. Zoologisches Worterbuch. *8vo. illust.* ? *Jena.*

ZIGNO, ACHILLE DE [1831–92].
1874. Pesci fossili nuovi del calcare, etc. *4to. 8 pl.* ? *Padova.*

ZIMMER, JOHN TODD [1889–].
1924. The wild turkey. *8vo. pp. 15. front. 1 fig. (vignette). bibliogr.* *Chicago.*
Author's reprint. A short but interesting account of the Wild Turkey (*Zoological Leaflet*, No. 6, Field Museum of Natural History, Chicago).

1926. Catalogue of the Edward E. Ayer ornithological library. (Field Museum of Natural History. Publication 239, 240. Zoological series, vol. xvi.) *2 vols. 8vo.* Pt. I, *pp. x+364. front. (col.). 7 pl.* Pt. II, *pp. 365–706. front. 3 pl.* *Chicago.*
One of the most useful, practical, and carefully prepared of all annotated catalogues available for the student of ornithology. It is an authors' catalogue of the Ayer Library alone and does not include the numerous additional ornithological titles in the general library of the Field Museum of Natural History. Plates mostly represent title-pages of rare books or unpublished drawings of birds. From a note at the end of part II we learn that in the works catalogued there are approximately 50,995 plates of birds, 1,981 plates of birds' eggs, and 39,347 text-figures of ornithological subjects. Attached to the copy in hand are two letters to Dr. Casey Wood, one from D. C. Davies and another from John T. Zimmer. The Compiler of this *Introduction* again acknowledges the valuable assistance he has had from these admirable volumes.

ZIMMERMAN, EBERHARD AUGUST WILHELM VON [1743–1815].
1777. Specimen zoologiae geographicae, etc. *4to. pp. 24+685. 1 map.* *Lugduni Batavorum.*
An early and well-known essay on zoogeography.

1778–83. Geographische Geschichte des Menschen und der vierfussig. Thiere. *3 vols. 8vo.* *Leipzig.*

1793. G. Imlay's Nachrichten von dem westlichen Lande der Nordamerikanischen Freistaaten. *8vo. pp. 16+168. See* IMLAY, GEORGE; *also* BARTRAM, W. *Berlin.*

ZIMMERMANN, RUDOLF.
1910. Tiere der Heimat; Bilder und Skizzen aus dem Tierleben unseres Vaterlandes. *8vo. pp. 163. pl. 100 text-figs.* *Leipzig.*
A graphic account of common German faunal life including many birds. From the Cabanis-Reichenow collection.

[**1910**]. Vom Nützen und Schaden unserer Vögel. *8vo. pp. 76. 6 pl. text-figs.* *Leipzig.*

ZINANNI, GIUSEPPE, *Count. See* GINANNI, G., *Count.*

ZINATU'L-KHAYL.
1907. A versified treatise in Hindustani [written about 1835 by Mahdi Hasan] on horses. Lithograph. *pp. 220.* *Cawnpore.*

ZITTEL, KARL ALFRED VON [1839–1904].
1871–2. Aus der Urzeit. *8vo. pp. 596. 7 pl. 4 maps. text-figs.* *Munich.*
The first edition of a popular work on paleontology, a second printing having been issued in 1875.

1875. Aus der Urzeit. Bilder aus der Schöpfungsgeschichte. 2nd ed. *8vo. pp. 16+630. 5 maps. text-figs.* *München.*

1876–93. Handbuch der Paläontologie. *5 vols. illust.* *Leipzig.*
A comprehensive study of the subject from the earliest times to the end of the nineteenth century, later translated into English and French.

1883–94. Traité de paléontologie [tr. by Charles Barrois and others]. *5 vols. illust.* *Paris.*

1903. Text Book of Paleontology. English tr. by C. R. Eastman. *2 vols. illust.* *New York.*
This, the latest translation of a valuable work, should be read in the original by research students although the translator has done his work fairly well.

ZOE; A biological Journal. *San Francisco.*
1890–1918. (Suspended 1894–1900.)

ZOOFILO. (**Società Zoofila Napoletana.**)
1875–*date*? *Naples.*

ZOOFILO VENEZOLANO. **1896–1900**? *Carácas.*

ZOOIASIS. **1834–6**? *Leipzig.*

ZOOLOGE. **1795–7**? *Eisenbach.*

ZOOLOGIA. *See* ZOOLOGICA. *New York.*

ZOOLOGIA DANICA.
1878–1907. Afbildninger af Danske Dyr med populær Text. Paabegyndte af J. C. Schiødte. Pts. 1–12. (All pub.) *4to. pp. 968. 72 col. pl.* *Kjøbenhavn.*

ZOOLOGICA.
1887–1923. Leuckhart and Chun. *See* BIBLIOTHECA ZOOLOGICA. *Cassel, Stuttgart.*

ZOOLOGICA. (Scientific Contributions of the New York Zoological Society.) **1907**–*date.* *New York.*

ZOOLOGICÆ RES. **1894.** *Rome.*

ZOOLOGICAL BULLETIN. *Boston.*
1897–9. Succeeded by Biological Bulletin.

ZOOLOGICAL ILLUSTRATIONS. *London.*
1820–3.

1829–33. New series.

ZOOLOGICAL JOURNAL. *London.*
1824–34. Supplement **1835.** (All pub.)
Edited by N. A. Vigors. *5 vols. in 20 pts. 129 pl. many col.* A valuable periodical.

ZOÖLOGICAL MAGAZINE. **1833.** *London.*

ZOOLOGICAL MAGAZINE. *Tokyo.*
1888–1897. In English, French and Japanese. *See also* ANNOTATIONES ZOOLOGICAE JAPONENSES.

ZOOLOGICAL MISCELLANY. (Gray.) **1831–44**? (All pub.). *London.*

ZOOLOGICAL MISCELLANY. **1814–17.** (All pub.) *London.*

ZOOLOGICAL QUARTERLY.
1903–5 (May). Vols. 1–3. (All pub.) *8vo. illust.* Edited by H. A. Surface. *Harrisburg, Pa.*
This periodical is entirely devoted to 'Birds about the Farm'—owls, hawks, and other common avifauna.

ZOOLOGICAL RECORD. *London.*
1864–*date.* Nos. 1–6 as Record of Zoological Literature. Nos. 43–52 as International Catalogue of Scientific Literature.
Alfred Newton was the first editor of this most valuable of all English Catalogue-periodicals.

ZOOLOGICAL SOCIETY BULLETIN. *See* NEW YORK ZOOLOGICAL SOCIETY.

ZOOLOGICAL SOCIETY OF EGYPT.
1927–8. Bulletin.

ZOOLOGICAL SOCIETY OF LONDON.
1848–66. Illustrations.

1830–60. Proceedings.

1861–*date.* Proceedings.

1835–*date.* Transactions.

[**1826–**]**1927.** Centenary History, with an account of the mammals, birds, reptiles, and amphibia.

ZOOLOGICAL SOCIETY OF PHILADELPHIA.
1873–*date.* Annual Report.

1923–*date.* Report of Laboratory and Museum of Comparative Pathology.

ZOOLOGICAL SOCIETY OF TOKYO. *See* ZOOLOGICAL MAGAZINE, TOKYO.

ZOOLOGICA PALAEARCTICA. *See* PALLASIA.

ZOOLOGICHESKIĬ VESTNIK. **1916**–*date.* *Leningrad.*
French title: Journal Russe de Zoologie. Résumé in English and French.

ZOOLOGICHNÏI ZHURNAL UKRAÏNI. VSEUKRAÏNS'KA AKADEMÏÏA NAUK.

ZOOLOGISCH-ANATOMISCHES INSTITUT ZU WÜRZBURG. *See* WÜRZBURG.

ZOOLOGISCH-BOTANISCHE GESELLSCHAFT, VIENNA.
1901–25. Abhandlungen. (All pub.)

1851–*date.* Verhandlungen.

(**K.**) **ZOÖLOGISCH-BOTANISCH GENOOTSCHAP.** *Hague.*
1864–*date.* Verslag.

ZOOLOGISCHE ANNALEN. **1793.** *See also* MAGAZIN F. D. THIERGESCHICHTE, etc. *Weimar.*

ZOOLOGISCHE ANNALEN. **1905–19.** (All pub.) *Würzburg.*

ZOOLOGISCHE BEITRÄGE. **1883–92.** (All pub.) *Breslau.*

ZOOLOGISCHE BEITRÄGE AUS UPPSALA. *See* UPSALA. UNIVERSITËT.

ZOOLOGISCHE GESELLSCHAFT. *Hamburg.*
1862–1920. Bericht.
Continued as Hamburg. Zoologischer Garten. Bericht.

ZOOLOGISCHE JAHRBÜCHER. *Jena.*
1910–*date*. Abt. für Allgemeine Zoologie und Physiologie der Tiere.
1888–*date*. Abt. für Anatomie und Ontogenie der Tiere.
1888–*date*. Abt. für Systematik, Geographie und Biologie.
1886–*date*. Supplement-Band.

ZOOLOGISCHE MEDEDEELINGEN. *See* LEYDEN. RIJKS MUSEUM VAN NATUURLIJKE HISTORIE.

ZOOLOGISCHER ANZEIGER. *Leipzig.*
1878–*date*. Vols. 1–78. *See also* DEUTSCHE ZOOLOGISCHE GESELLSCHAFT.

ZOOLOGISCHER BEOBACHTER. *See* NATURWISSENSCHAFTLICHER BEOBACHTER.

ZOOLOGISCHER BERICHT. **1922**–*date*. *See* DEUTSCHE ZOOLOGISCHE GESELLSCHAFT. *Jena.*

ZOOLOGISCHER GARTEN. *Frankfurt a. M.*
1871–91. Organ der Zoolog. Gesellschaft.
1892–*date*. Neue folge.

ZOOLOGISCHER JAHRESBERICHT. **1879–1913.** (All pub.) *See* NAPLES, STAZIONE ZOOLOGICA. *Leipzig.*

ZOOLOGISCHES MAGAZIN. **1817–23.** *Kiel.*

ZOOLOGISCHES STAATSINSTITUT UND ZOOLOGISCHES MUSEUM ZU HAMBURG.
1884–1914. As Naturhistorisches Museum.
1882–*date*? Jahresbericht.
1893–*date*. Mitteilungen.

ZOOLOGISCHE STATION IN TRIESTE. *See* ARBEITEN AUS DEM ZOOLOGISCHEN INSTITUT DER UNIVERSITÄT WIEN UND DER ZOOLOGISCHEN STATION IN TRIEST.

ZOOLOGISCHES ZENTRALBLATT. **1894–1912.** *Leipzig.*

ZOOLOGISCHE ZEITUNG. **1867**? *Berlin.*

ZOOLOGISCH-ZOOTOMISCHES INSTITUT, GRATZ, AUSTRIA.
1886–*date*. Arbeiten.

ZOOLOGISCH-ZOOTECHNISCHES INSTITUT IN WÜRZBURG.
1874–83. Arbeiten. Vols. I–VI.

ZOOLOGISKA BIDRAG FRÅN UPPSALA.
1911–18. Vols. 1–6.

ZOOLOGIST. *London.*
1843–65. Series 1.
1866–76. Series 2.
1877–96. Series 3.
1897–1916. Series 4.
Merged into British Birds.

ZOOLOGISTS. Manuscript and typescript letters of.
A large assemblage (about 25,000) of letters—mostly autographic—of zoologists has been gathered for both the Blacker and E.S.W. libraries. They include the Robert Ridgway, Lord Lilford, Bowdler Sharpe, J. A. Allen, Woodward (*Br. Mus.*), Elliott Coues, William Brewster, Casey Wood, and several other collections covering the past 200 years.
These documents are of great interest and cannot fail to be valuable and useful to biographers and others especially concerned in the history of biology. Access to them is carefully guarded, and their use in research is strictly confined to serious and advanced students of biology and its literature.
In addition to this indexed and chronologically arranged collection, several hundred letters relating to works on the shelves have been inserted in library copies.

ZOOLOGY OF THE VOYAGE OF H.M.S. 'BEAGLE'.
1839–43. Edited . . . by C. Darwin. *4to. London.*
The zoologic annals of this famous scientific expedition appeared in five parts, the first devoted to Fossil Mammalia (1838–40), by R. Owen (with an Introduction by Darwin), *pp. 4+111 and illust. with 32 pl.*, 1838–40. The second part comprises Mammalia (1838–9), by G. R. Waterhouse (Introduction by Darwin), *pp. 5+97, 35 col. pl.*; the third treats of the Birds (1838–41) of the Voyage, by John Gould (an Introduction by Darwin and an anatomical appendix by T. C. Eyton); the fourth discusses the Fish (1840–2), by L. Jenyns, *pp. 15+172 and 29 pl.*; the fifth, Reptiles (1842–3), by T. Bell, *pp. 6+51*. *See also* BEAGLE, VOYAGE OF, *and* DARWIN, CHARLES.

ZOOPATHOLOGICA. (**New York Zoological Society.**) **1916**–*date*. *New York.*

ZOOPHILIST. *See* ANIMALS' DEFENDER AND ZOOPHILIST.

ZOOTECNICO. **1875–91.** *Turin.*

ZORN VON PLOBSHEIM, FRIEDRICH AUGUST [1711–89].
1733–63. Vorstellung der Vögel in Teutschland. *See* FRISCH, J. L.

ZOUCHE, ROBERT CURZON [1810–73].
1854. Armenia; a year at Erzeroom, and on the frontiers of Russia, Turkey, and Persia. *8vo. pp. 17+226. 6 pl. 3 figs. New York.*
Contains an account of the great variety and vast numbers of birds, with a list of the various species (171) found at Erzeroom.

ZSCHOKKE, FRIEDRICH [1860–].
1921. Festschrift zur Feier des 60. Geburtstages von Friedrich Zschokke. *42 pts. in 1. 4to. portr. illust. Basel.*
Contains a number of papers on vertebrate zoology, although the naturalist himself wrote mostly on invertebrates.
1928. Die Tierwelt d. Kantons Tessins. *Basel.*

ZUGMAYER, ERICH [1879–].
1911. Diagnoses des Poissons nouveaux . . . du yacht 'Princesse-Alice', 1901–10. (Institut Océanographique, Prince of Monaco.) *8vo. Monaco.*

ZULIANI, MARCO E PIETRO.
n.d. Raccolta di 125 tavole di Uccelli relative alla Storia Naturale del Buffon . . . et al. *See* BUFFON, G. L. L.

ZÜRICH. Naturforschende Gesellschaft.
1799–1930. Neujahrsblatt. (Under various changes of title.)
1856–1930. Vierteljahresschrift.

ZUR STRASSEN, O. **1911–13.** *See* BREHM, A. E.

ZWART, KERST.
1918. Vogelboek; zangers en krassers bij huis en schuur, etc. 2nd ed. *8vo. pp. 14+168. illust. Zutphen.*

ZWICKAU.
1874–1930. Verein für Naturkunde Jahresbericht. *8vo. Zwickau.*

PRINTED IN GREAT BRITAIN AT THE UNIVERSITY PRESS, OXFORD
BY JOHN JOHNSON, PRINTER TO THE UNIVERSITY